

DYSPEPSY FORESTALLED AND . . . LISTED:

OR

LECTURES

ON

DIET, REGIMEN, AND EMPLOYMENT;

DELIVERED TO THE STUDENTS OF AMHERST COLLEGE,

SPRING TERM, 1830.

BY EDWARD HITCHCOCK,

Professor of Chemistry, and Natural History in that Institution.

Whatever will cure, will prevent; as water poured on will extinguish fire, so it will prevent its being kindled.—CHEYNE.

SECOND EDITION.

CORRECTED AND ENLARGED BY THE ADDITION OF AN

ADDRESS

DELIVERED BEFORE THE MECHANICAL ASSOCIATION IN ANDOVER THEOLOGICAL INSTITUTION, SEPT. 21, 1830;

AND

AN APPENDIX OF NOTES.

AMHERST:

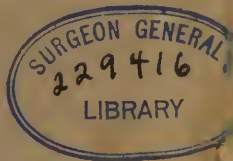
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DISTRICT OF MASSACHUSETTS,....*To wit :*

District Clerk's Office.

Be it remembered, that on the eighth day of May, A. D. 1830, in the fifty fourth year of the independence of the United States of America, J. S. and C. Adams, of the said district, have deposited in this office the title of a Book, the right whereof they claim as Proprietors in the words following, *to wit :—*

Dyspepsy forestalled and resisted : or Lectures on Diet, Regimen and Employment; delivered to the Students of Amherst College ; Spring Term, 1830. By Edward Hitchcock, Professor of Chemistry and Natural History in Amherst College. Whatever will cure, will prevent ; as water poured on will extinguish fire, so it will prevent its being kindled.—*Cheyne.*

In conformity to the act of Congress of the United States, entitled “an act for the encouragement of learning, by securing the copies of maps, charts and books, to the authors and proprietors of such copies, during the times therein mentioned;” and also to an act entitled “an act supplementary to an act, entitled an act for the encouragement of learning, by securing the copies of maps, charts and books to the authors and proprietors of such copies during the times therein mentioned ; and extending the benefits thereof to the arts of designing, and etching historical and other prints.”

JNO. W. DAVIS,

Clerk of the District of Massachusetts.

PREFACE TO THE SECOND EDITION.

Most of the additions to this edition of the following Lectures, consist of An Address on the Physical Culture adapted to the Times, delivered at Andover last autumn : and an Appendix of Notes. The latter contain fuller discussions of some points but partially examined in the Lectures, and also a view of several subjects connected with Hygiene, not treated of at all in the first edition. The whole work has also been divided into numerous sections, with short captions prefixed to each subdivision, indicating its contents, so as to render practicable a rapid examination of the work. To aid in the same object, the subjects treated of are stated briefly, as far as possible, over each right hand page ; and a copious summary of the contents of the whole work, will be found in the usual place for a Table of Contents. Short notes have also been occasionally put in the margin of the body of the work, besides those in the Appendix. In only a few cases, however, have new thoughts been inserted in the original text : But the broad end of the *Στυλος* has been often used, in erasing from thence, what further reflection showed to be erroneous or injudicious.

The author acknowledges his obligations to the Editors of those periodicals and newspapers, who have inserted Reviews, or Notices, of the first edition of these Lectures. This acknowledgement extends, at least, to the following works ; and perhaps to others, which may have noticed the Lectures without his knowledge.

American Journal of Education : Quarterly Register of the American Education Society : American Journal of Science and Arts : Spirit of the Pilgrims : Christian Examiner : Journal of Health : Journal of Humanity : Christian Mirror : Southern Religious Telegraph : Village Record ; and Newburyport Herald.

The author, also, is indebted to those very respectable gentlemen in the metropolis of New England, who have generously borne their public testimony in favor of the Fourth Lecture, as it appeared in the form of a Prize Essay.

Whatever suggested amendments of the work are contained in these numerous notices, have been thankfully received ; and either made in the proper place, or the reasons for a different opinion have been given in the Notes.

In preparing this work—particularly the second edition—the following works have been more or less thoroughly consulted ; and extracts from them all will be found in this edition. The list is here inserted, in the hope that it may assist the intelligent dyspeptic, in the selection of his library.

Journal of Health, 1st and 2d Vols.

J. Johnson on Derangements of the Liver and Internal Organs, 1 Vol. 8vo.

Do. Essay on Morbid Sensibility of the Stomach and Bowels, &c. 1 Vol. 12mo.

Do. Influence of Civic Life, Sedentary Habits and Intellectual Refinement on Human Health, &c. 1 Vol. 8vo.

- Philip on Indigestion, &c. 1 Vol. 8vo.
 Paris on Diet, 1 vol. 8vo.
 Cheyne's Natural Method of Curing the Diseases of the Body and the Disorders of the Mind, 1 Vol. 8vo.
 Do. Essay on Health and Long Life, 1 Vol. 8vo.
 Do. Essay on Diet and Regimen, 1 Vol. 8vo.
 Trotter's view of the Nervous Temperament, 1 Vol. 12mo.
 Do. Essay on Intemperance, 1 Vol. 8vo.
 Sure Methods of Improving Health, and Prolonging Life, &c. 1 Vol. 8vo.
 The Manual for Invalids, 1 Vol. 8vo.
 The Dyspeptic's Monitor, 1 Vol. 12mo.
 Daggett's Abridgement of the writings of Cornaro, 1 Vol. 18mo.
 Faust's Catechism of Health, 1 Vol. 12mo.
 Rees' Cyclopaedia.
 Edinburgh Encyclopedia.
 Encyclopædia Americana.
 Beddoes' Essays on Hygeia, 2 Vols. 12mo.
 Lambe's Additional Reports on the Effect of a Peculiar Regimen in Cases, &c. 1 Vol. 8vo.
 Reid's Essays on Hypochondriacal and other Nervous Affections, 1 Vol. 8vo.
 Sinclair's Code of Health and Longevity, 4 Vols. 8vo.
 Hufeland's Art of Prolonging Life, 2 Vols. 8vo.
 Noveaux Elemens D'Hygiene, Par Charles Londe, 2 Vols. 8vo. Paris 1827.
 Le Catechisme De La Medicine Physiologique, 1 Vol. 8vo. Paris 1824.
 La Physiologie Des Gens Du Monde Par le Chev. Chaponnier, 1 Vol. 8vo. Paris 1829.
 Hygiene Des Colleges et Des Maisons D'Education; Par Ch. Pavet De'Courtelle; Paris, 1827.
 ΥΓΙΕΙΝΑ ΠΑΡΑΓΓΕΛΜΑΤΑ ΠΡΟΣ ΧΡΗΣΙΝ ΤΟΥ ΕΛΛΗΝΙΚΟΥ ΛΑΟΥ; παρὰ ΚΩΝΣΤΑΝΤΙΝΟΥ ΚΑΡΑΘΕΟΔΩΡΗ, Paris, 1829.



PREFACE TO THE FIRST EDITION.

As the following Lectures were prepared and delivered without solicitation, so they are published upon the private responsibility of the writer; who has not waited to ascertain what reception they would meet from his hearers. If any explanation is needed for thus printing them, so as to be offered for sale the very day after the last one was delivered, he would say to his auditors, who have given him so full and patient a hearing, that he hopes a desire to accomplish the most in the cause of temperance, has been his leading motive. He thought that the delivery of these Lectures would be likely to produce more effect than their perusal alone. Yet he supposed that no memory would be sufficiently retentive to preserve a distinct recollection, even of all the important rules and maxims, connected with the subject. He wished, therefore, to give all who are disposed, an opportunity to examine, at their leisure, the system of diet, regimen and employment, which he has advanced; by putting this volume within their reach. And he thought it important, that this should be accomplished, while the interest excited on the sub-

ject, was yet fresh. Circumstances of a private and personal nature, conspired also, to urge on this publication thus rapidly. The writer is aware, that such a course has rendered attention to literary niceties more difficult than would be desirable. For the whole business of writing, delivering, and printing these Lectures, has been crowded into the space of a few months; and this too, in addition to ordinary professional duties in College. He hopes, however, that though the style may need correction, the meaning will be found clear and definite—a point that has been kept steadily in view.

The author presumes that these considerations will afford little, or no apology, for errors, in the view of the professed critic. To such, and to all others, into whose hands this volume may fall, he would say, in the words of a distinguished dietetic writer of early times, in his preface to an *Essay on Health and Long Life*:—"I know not what may be the fate and success of this performance; nor am I solicitous about it, being conscious the design was honest, the subject weighty, and the execution the best my time, my abilities, and my health would permit, which cannot bear the labor of much filing and finishing. Being careful not to encroach on the province of the physician, I have concealed nothing, my knowledge could suggest, to direct the sufferer, in the best manner I could, to preserve his health, and lengthen out his life: and I have held out no false lights to lead him astray, or torment him unnecessarily."

The reader will perceive, that the fourth Lecture is the same, with a few slight additions, as a Prize Essay recently published under the direction of the American Temperance Society. Let him not hence infer, that that Society are acquainted with the sentiments advanced in the other Lectures, and approve of them. For this is not the case: no member of that Society having been consulted, as to any of the opinions advanced. The writer is alone responsible for those opinions; and to him alone belongs the credit, if they are correct, or on him must fall the blame, if they are erroneous.

Amherst College, May 6th, 1830.

Since the above was in type, the following communication has been received from the students of Amherst College. And while I take this opportunity to thank them for their favorable reception of the following Lectures, I am happy in being able thus early to comply with their request.

TO PROF. E. HITCHCOCK,

SIR,—The members of the College, through the medium of the undersigned as their Committee, acknowledge their obligations to you for your interesting and instructive Lectures on the subject of Health. By giving them a permanent form, your wishes for the welfare of the students, it is believed, will be best accomplished, and at the same time, important information be placed within the reach of others. We are instructed, therefore, to request, in the name of the students, that the discourses in question may be printed.

H. B. HACKETT.
PETER PARKER.
LYMAN GIBBONS.
H. D. HUMPHREY.

Amherst College, May 7th, 1830.

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* When this Note was written, it was supposed to refer to Mr. Owen of New Harmony ; but I believe it is his son : who has not to my knowledge, had any concern in "the Social System."

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PART I. DIET.

LECTURE I.

Introductory Remarks. Errors in respect to the Causes and Cure of Nervous Complaints. Objections against living by rule. Objections against Dietetic Rules. Proper quantity of Food.

Object of these Lectures.

GENTLEMEN,

THE premature prostration and early decay of students and professional men in our country, excite a deep interest in the mind of every friend to learning and humanity. Time was, when it was generally thought, that this was but the dismal spectre of melancholy minds: but the fact is no longer doubted. Too many budding hopes have been blasted; too many wrecks are strewed around us, to suffer the reality to be hid any longer. And now the solicitous inquiries are, what is the cause, and what is the remedy? To answer these questions, is my object in addressing the members of this Institution. I have formerly made a slight and feeble extempore effort of this kind; but I wish now to examine the subject more systematically, more extensively, and more leisurely. I make no pretensions to professional knowledge concerning it; nor do I mean to invade the province of the physician. But a conflict of more than twenty years with the debility and prostration of which I have spoken, has compelled me to pay not a little attention to the means of resisting the foe; and taught me, experimentally, not a few of his insidious and ever varying modes of attack. Whatever I have thus learned, I feel desirous of

communicating to the young gentlemen of this College, in the hope that it may tend to prevent their falling into the hands of the inexorable tyrant, to whose car I have so long been fettered : but from which, I am confident I might long ago have escaped, had some kind friend plainly pointed out to me my situation and the means of deliverance. Let this belief be my apology for great plainness and earnestness.

Prevention and cure of nervous maladies.

The premature decay and prostration, of which I have spoken, result, most usually, from what is generally called Dyspepsy, or Bilious, or Nervous Disorders. And I would here state an important principle in relation to them ; viz. that *essentially the same means that will cure, will prevent, these complaints.* The same general rules in regard to diet, exercise, and employment, will apply both to the prevention and the cure. In the latter case, it only requires a more rigid and unremitting application of these rules.

Prevention easier than the cure.

This leads me to premise another most important fact on this subject ; viz. that *the prevention of nervous maladies, is vastly easier than their cure.* They are not so incurable, I believe, as is commonly thought ; Still, where they have made an impression on the constitution considerably deep, it requires so long and so strict an attention to rules, that few have the resolution and the perseverance requisite to success. And besides, when a cure has been effected, a recurrence to former habits, or a little extra exertion, is extremely apt to bring the system again under their power. The chief hope, therefore, lies in prevention : and on this account I feel particularly solicitous, that every young man, while yet he is tolerably free from dyspeptic habits, should be made acquainted with his dangers, that he may guard against them.

Ignorance a fruitful cause of nervous complaints.

There can be no doubt, that we are to impute the alarming prevalence of nervous complaints, in a great measure, to the ignorance that has so extensively prevailed among students, in the early stages of education, as to their causes, remedies, and means of prevention. This has been a part of education, which it has been the custom to neglect, and thus to leave the health of the young, the very foundation of all their hopes, to take care of itself. We have yet scarcely got rid of the belief, not long since so prevalent, that nervous ailments are the creatures of imagination, and that it is even unsafe to study into their nature, lest we should catch the mysterious contagion from the mere description. Just as if knowledge, which, on every other subject, is the pole star of human conduct, should in this case, prove a mere ignis fatuus to bewilder and blind, while ignorance would be security and bliss. But though such absurdities are vanishing, still the means are not yet put into the hands of the student for guarding himself against the insidious approaches of ill health. He knows only, in general, that temperance and exercise are necessary for him, and that excessive study is injurious: But when he comes to apply these principles to practice, it is easy to see, that he knows so little of their details, that they are really worse than useless. He may be a glutton; and his exercise, from the time or manner in which it is taken, may be an injury instead of a benefit; and his studies may be conducted in a way most fatal to health, while he supposes himself rigidly adhering to correct principles of diet and regimen.

Necessity of thorough attention to this subject.

Hence we see the necessity of attending to this subject thoroughly and minutely. The smallest circumstances must not be passed over; since it is such circumstances, operating slowly, that more commonly undermine the constitution,

than any great and sudden violation of the rules of diet and regimen. On this account, I shall be under the necessity of devoting several lectures to this subject. If, however, any one should consider them too long and tedious, he can use the liberty which a general invitation gives him, of withdrawing whenever he pleases: since, as these lectures are wholly gratuitous and unsolicited, no one is required to be present.

Difficult to convince men of the necessity of attention to health.

But merely to bring the truth on this subject before the minds of students, is by no means the most difficult part of the work to be performed. While men are in tolerable health, it is next to impossible to convince them that the minute rules which physicians prescribe for preserving it, are not puerile, inefficient, and unnecessary. To satisfy them that the continuance of their health depends upon a few ounces more or less of food at their meals; or upon an hour more or less daily, of exercise; or upon the time of retiring to rest and rising in the morning; or upon a little greater or less application to study; is almost to work a miracle. A feeble man may well enough attend to such minutiae; but for the healthy to do it, is, in their estimation, to make the constitution effeminate, and bring on the very disorders we would avoid.

Still more difficult to persuade them to adopt these rules.

Nor is it the most difficult part of the work to convince the understanding of the necessity of attention to diet, regimen, and employment, for preserving the health. To persuade a person to adopt the necessary habits, for conforming to these rules, is the great difficulty. Here we come directly in contact with appetites and inclinations that have been indulged from infancy. Eat vastly less in quantity than you do—eat of one dish only at a meal—eat little or no animal food—drink much less—drink water—walk ten miles where you now go one—retire early to rest, and rise early—in short, be regular in all things, be temperate in all

things. Such are the rules which must be followed by him who would escape the iron reign of dyspepsy ; and it is easy to see, that they aim a separating blow at many darling objects to which animal nature clings. The man will not give them up without a desperate struggle. They are his gods ; the objects of a much sincerer worship, than the heathen pays to his idols.

Most difficult of all to persuade dyspeptics.

Of all men living, it is the most difficult to bring up to the work of regularity and temperance in living, those, who are already suffering from the incipient attacks of dyspepsy. No other class of men are so liable as these, to violate the rules of temperance in their daily habits. They will traverse the whole country to find out and consult physicians ; and will cheerfully submit to the operation of the most violent emetics and cathartics : but touch their idols—try to make them give up their intemperate habits of eating, drinking, and study, and you will find yourself beating the air

Source of this difficulty.

The same feeling, in regard to the means of preserving health, prevails, to a great extent, among those, who are already in possession of it. If you recommend to them to resort at certain seasons to a course of powerful medicine, or to some particular specific, they will listen to you with attention. And why ? Because you do not touch their idols. You only put them in pain for a little time, and when they have got through with their emetic or cathartic, they can gormandize with more relish than ever. Just as it was the custom among the Romans, to prepare themselves for a feast, by an emetic ; a practice still continued among gluttonous men and wine bibbers. But when you require of a man the practice of daily abstemiousness in food and drink, vigorous exercise and regularity, and moderation in all his habits and employments, you oppose his strong appetites, and he will

not believe your prescriptions to be necessary, because he wishes them unnecessary.

Few will probably believe and practice the rules of health laid down in these lectures.

On this account, it is, as I very frankly state in the outset, that I do not expect those who hear me, will be very ready to believe many things that I shall advance: much less do I suppose, that they will, in general, be persuaded to adopt the course I shall mark out, as essential to continued health and long life. I expect, that much I shall say, will merely afford matter for witty and amusing remarks; which is the usual course men adopt on this subject to avoid the force of arguments. I do not expect to be disbelieved, because I am going to advance any novel doctrines: for I shall only attempt to embody and illustrate those general principles, which the ablest physicians and other distinguished writers of all ages, have advanced; and I shall take special care to fortify my main positions by the testimony of the best living physicians, in this country and in Europe. Nor do I anticipate this failure of conviction, because I suppose this audience to be more sceptical and obstinate than other literary audiences: but simply because it is essentially like other literary audiences. And hence I have little doubt, that no small proportion of the young gentlemen, who hear me, will fall victims to nervous maladies and premature debility; because a large proportion of just such individuals have fallen: that is to say, I believe many of these youths, will either go down to an early grave, or drag out a miserable existence as confirmed dyspeptics. There is no need of such a result, I say; for, in general, these individuals might live and enjoy vigorous health to extreme old age. But I have scarcely a hope that they will believe and adopt those simple, yet rigid rules, without which they must probably sink prematurely. And yet, there may be some one, or two, or three, among them, who will listen, and be persuaded, and put in practice the essential rules of diet, regi-

men, and employment, and thus be saved from the gulph. Should this happen, my labors will not be in vain, nor unrewarded.*

Loose notions as to the origin of nervous complaints.

In respect to the causes of those chronic complaints to which sedentary persons are peculiarly exposed, there prevail very loose and inadequate notions, even among intelligent men. Very many mistake, by assigning as their origin, only one particular and limited cause. Some will tell you, that they proceed from the neglect of exercise alone; leaving out of the account diet and employment: others impute them to the want of attention to diet, and even to the use of particular articles, such as tea, coffee, &c. Others assign the great mental efforts, to which professional men are called at this day, as their cause; forgetful of the ponderous tomes of other centuries; which, to say the least, demanded intense, and protracted mental labor. Others impute them, in the case of literary men, to the unseasonable hours which they devote to study.

That each of these causes, and many others that might be named, are sometimes the sole source of nervous maladies, cannot be doubted: but no one of them is the universal cause. And in most cases, several of them are combined in undermining the constitution. We can only say, therefore, that, in general, they proceed from a want of proper attention to diet, regimen, and employment.

Loose notions as to the remedies for them.

No less erroneous are the prevalent opinions in regard to the remedies for these complaints. Some, indeed, assert that the way to cure them, is to pay them no attention; but to eat, and drink, and study, just as if all were well, and all will be well; since the difficulty lies in the imagination alone. In respect to such opinions, all that need be

* See Note A at the End.

said, is, that the men who advance them, have no knowledge of the subject, either from experience or reading : and therefore, no answer need be given to their crude and premature suggestions, until they are either brought under the influence of these maladies, or will read the works of able physicians concerning them ; and then they will no longer need an answer.

Specifics for dyspepsy.

But there is another error on the subject, that does need some notice. There is a strong disposition, among those who have some experimental or book knowledge concerning these complaints, to ascertain and recommend some particular specific remedy, which shall apply, and cure, universally. The best of all such remedies is some preparation of the apothecary ; which, by its occult qualities, shall perform a cure, on being taken into the system, while a person pays little or no attention to diet, regimen, and employment : for in such a case, a man is under no necessity to resist a ravenous appetite, nor to conquer his bodily indolence, nor to give up his late hours of study. Hence it is, that we are inundated by infallible pharmaceutical remedies for dyspepsy. “Have you ever tried the blue pill,” says one ? “Have you ever tried white mustard,” says another ? “Have you ever tried dandelion, bismuth, or a hundred other things,” say others ? “They have cured us, and such a one, and such a one, and will probably cure you.” Now I am not contending that such medicines are useful in no case of nervous maladies. They undoubtedly are indispensable, as auxiliaries, in many instances. But they cannot be substituted for temperance and regimen. On the contrary, a resort to drastic medicines, by persons of feeble health, at every recurrence of their unpleasant symptoms, particularly to medicines not recommended by the regular physician, is the sure way to aggravate their complaints, and utterly to ruin their constitutions. One of the most distinguished living physicians in London, “is in

the habit of saying, he knows no medicines for nervous complaints, but air and exercise.*" If the experienced physician is at a loss what to prescribe," says another distinguished London physician,† "and frequently finds it most prudent to prescribe nothing at all, what infinite mischief must be hourly produced by the patient, and still more ignorant quack, pouring drugs, of which they know little, into a body, of which they know less?" If then the medicines of the apothecary are scarcely to be employed in the cure of nervous maladies, much less are they to be recommended to the healthy for their prevention. The grand point is, to bring the system into such a state, by diet, regimen, and employment, that medicines are rarely if ever necessary. And this has been done a thousand times, and can be done a million of times more. It is the grand point at which I am aiming in these Lectures.

Attention to some one branch of regimen and diet only.

But some, who have correct ideas respecting medicines, as a preventitive, or cure, for nervous maladies, mistake in supposing that attention to some branch only of temperance and regimen is sufficient. One man is very regular and persevering in his exercise, but he has no power over his appetite; and eats and drinks voraciously. Another is a pattern of abstemiousness in his diet; but he makes this a substitute for bodily exercise, and soon destroys his constitution. A third is very particular in the choice of articles of diet, but pays no attention to quantity; or rather, always indulges to excess upon his favorite dish. One year the Gymnasium is the grand Panacea, in spite of high living and irregular habits. Another year, the grass is suffered to grow in the gymnastic grove, and mechanical employments, with the saw and the hammer, are the infallible remedy, in spite of intemperance in all other respects. A third

* Mr. Abernethy.

† Dr. Johnson, On the Derangements of the liver &c. p. 122.

year, gardening, or riding horseback, or visiting Ballston or Saratoga Springs, is a substitute for every thing else. I do not doubt but many have found relief, and perhaps some a perfect cure, by each of these means: but, in general, they only remove, or soften down, certain symptoms, while the disease remains within, as obstinate as ever, ready to break out ere long, in some new and aggravated form. But equally rigid attention to every part of diet, regimen, and employment, agreeable to the most approved and established rules, is, in general, indispensable, both for the cure and prevention of these maladies. You cannot make one a substitute for the others. God has joined them together, as the means of preserving and restoring health: and any man puts them asunder at his peril. However earnestly, therefore, I may urge the adoption of particular parts of this three fold system, I hope it may always be remembered that I consider them only as parts, and not the whole; and that I demand, as essential, an equally strict attention to every other part.

Plan of the Lectures.

The rules for the prevention and cure of nervous maladies, I shall describe under three classes; viz. DIET, REGIMEN, and EMPLOYMENT. These terms may need a moment's explanation.

Under *Diet*, I shall include all that is taken into the system in the form of food and drink; embracing the quantity and quality, the times at which they should be taken, and the manner of taking them.

Under *Regimen*, I shall include Exercise, Air, Clothing, Cleanliness, Evacuations, Sleep, Manners, and the Influence of the Imagination and Passions.

Under *Employment*, I shall consider the influence exerted upon the health by the different avocations of society. Here, however, on account of the character of my audience, I shall confine myself chiefly to literary pursuits.

First objection against living by rule.

Against the adoption of precise rules for Diet, Regimen, and Employment, there exist strong prejudices in the minds of many, especially of the healthy. "It is treating a person who is well, as if he were sick," says one. No, I answer; it is treating him as if he might be sick: It is foreseeing the evil, and taking the most judicious method of guarding against it.

Second Objection.

"It is the way," says another, "to make the constitution tender and delicate, and incapable of enduring the changes, exposures and hardships, to which we are all liable." It is the very way, I answer, to invigorate the constitution, and give it the greatest muscular strength of which it is capable, consistent with our employment. At least, I contend for no rules, except such as will do this; and either recover, or make more comfortable, those of debilitated constitutions.

Third Objection.

"Whatever may be said of the feeble," says another, "those in health, do not need to live by rule. Their health will take care of itself, if it be not spoiled by constant nursing." Why then, I ask, in reply, has not the health of the numerous invalids in the United States, taken care of itself? Were they not once in health? and is there any evidence that they have ruined it by living according to too rigid rules? Nursing is not one of the leading features of the rules of regimen and diet; but temperance is a leading feature. A man in health, you say, does not need to live by rule. But have you no rule in respect to eating and drinking, exercise and rest, study and sleep? Do you indulge your appetite without any restraint, when it is tempted by rich food, and alluring drink; Do you exercise, and study, and sleep, and eat, and drink, by chance? By no means: you have some standard for regulating all these things: Every man has one; and could not live without one. Your only

difficulty is, an apprehension that the standard, which I shall propose, will not agree with yours: you are afraid mine will be more rigid, and oblige you, if you adopt it, to give up some darling habit.

Dr. Jackson.

A striking instance of a man's living by most exact and excellent rules, while he declares himself living without rule, is presented to us in the case of Dr. Jackson, an aged and distinguished physician in the British army. "I have wandered a good deal about the world," says he, "and never followed any prescribed rule in any thing; my health has been tried in all ways; and by the aids of temperance and hard work, I have worn out two armies, in two wars, and could probably wear out another before my period of old age arrives. I eat no animal food, drink no wine, or malt liquor, or spirits of any kind; I wear no flannel, and regard neither wind nor rain, heat nor cold, when business is in the way." Here you have a man following no prescribed rule, yet adhering most rigidly to all that is important in prescriptions for temperance and exercise. If any other man will thus live by rule, without rule, I will not quarrel with him about the use of terms.

Fourth Objection.

"But this living by rule," says a fourth objector, requires too much time. A man of fortune and leisure may attend to it, but I have something else to do." To live by rule, I say, in reply, is the way for any man to save time. For a place is thus found for every necessary concern, and every thing is kept in its place: whereas the man, who lives by chance, loses much time, and comfort too, by the confusion and interference of his concerns. How can you accomplish so much? said once a friend to a Prime Minister. "I never do but one thing at a time," was the reply. Now this is the effect of living by rule. True, for a man of careless and irregular habits, to come at once under the

guidance of fixed principles, in respect to diet, regimen, and employment, will, for a time, engage a considerable share of his attention. But such a course soon becomes habitual; and then he follows on in the same regular routine, almost without a thought. And besides, a man who keeps his head clear by temperance and exercise, will do more in an hour, than one, even slightly given to excess, in three.

These protracted preliminary remarks seemed necessary to introduce the first part of my subject, viz :

DIET.

And here also, two or three objections meet us, in the very outset, which are considered by most men, as sufficient to justify them in neglecting, almost entirely, any special attention to their food and drink. These must, therefore, first be considered.

First objection against dietetic rules.

Says one, "men who pay no attention to diet, nay, many who are very irregular in their food and drink, enjoy as good health, and live as long, as those who are very particular in this respect."

In reply, I doubt the statement here made. I know such is the prevalent opinion; but where are the examples to support it? That some instances have occurred apparently of this description, I do not doubt; and that in many cases of great longevity, the individuals were for a time, or at several times, guilty of violating the rules of temperance, I admit. We know this was the fact with the famous Thomas Parre, who lived 153 years: also with Henry Francisco, a Frenchman, who recently died in New York, at the age of nearly one hundred and forty. But their intemperance was not habitual: it did not continue long enough to destroy the stamina of their constitutions; although it probably shortened even their lives: indeed, in the case of Parre, there can be no

doubt, that a change from simple to rich diet, was the cause of his death. If there are any examples of persons, who have habitually violated the rules of temperance and regimen, and yet have enjoyed good health, and lived to extreme old age, I am unacquainted with them. All the cases of remarkable longevity, of which I have read, where the mode of living was described, support the opposite opinion. A writer in Rees' Cyclopædia, after mentioning a large number of persons of great age, says—"it would be very difficult, in the history of the several persons above mentioned, to find any circumstances common to them all, except perhaps that of being born of healthy parents, and of being inured to daily labour, temperance, and simplicity of diet." If there are any exceptions to this statement, it is only one in a thousand; and therefore, they form no objection against the general principle, that attention to diet is important.

But if any such exceptions can be found, I hesitate not to say, that they will not be found among literary men; but rather among the hard labouring classes of society, whose vigorous exercise has in a great measure counteracted the effects of intemperance in eating or drinking. Students, therefore, have no concern in such exceptions.

Second objection.

Another objection against dietetic rules is, that no agreement exists on the subject among medical or other writers; and therefore, a man cannot tell whom, or what, to follow.

If such were, indeed, the fact, the conclusion would inevitably result. But I would ask the individual, who makes the objection, have you ever read the works of physicians and others upon diet, with sufficient care to be satisfied that they advance no principles in common? Or, because you have ascertained that there is considerable diversity of opinion upon some points, do you hence infer that every thing is uncertain and controverted? As to the comparative value, ease of digestion, and nutritive power, of different kinds of food, writers on dietetics, do, indeed, differ not a little :

And the quality of food constitutes, in the opinion of most persons, the grand point to be attended to, in dieting: hence they conclude that any disagreement on this subject is a *lis de capite*. Whereas, in fact, this is one of the least important parts of the subject. And concerning the quantity and variety of food, and the time and manner of taking it, there is such a general agreement among all able writers, from the Grecian Hippocrates and Galen, down to the present day, that there remains no reasonable ground for scepticism to stand upon. There are certain general rules on these points, as well established, as almost any principles in medicine and chemistry. Mankind, however, in general, live, either ignorant, or regardless of them; and therefore, when they are brought forward, they seem novel and strange. Until I have faithfully done this, however, I shall not feel my conscience discharged.*

THE FIRST AND PERHAPS THE MOST IMPORTANT RULE RESPECTING DIET, IS, THAT THE QUANTITY OF FOOD, TAKEN AT ANY ONE MEAL, SHOULD BE VERY MODERATE.

I presume all who hear me, will give a general assent to this rule, as reasonable and important. But when I come to explain and illustrate it, I fear it will not be so acceptable. What then do I mean by a very moderate quantity?

I mean that quantity, which physicians, and others in different situations and ages of the world, who have made a fair trial, have found most conducive to vigor and activity of body and mind, continued health, and long life. I will quote some examples.

Temperance of the ancient philosophers and early Christians.

Most of the ancient philosophers might be named as patterns of health, temperance, and long life. Pythagoras, in particular, restricted himself to vegetable food altogether; his dinner being bread, honey, and water: and he lived upwards of eighty years. His followers adopted the same diet, and with results equally striking. It is well known, also, that the early Christians were remarkable for tem-

* See Note B,

perance, and for longevity too, when not removed by persecution. Matthew, for example, according to Clement, lived upon vegetable diet: *Ματθαῖος μὲν οὖν ὁ ἀποστολὸς, καὶ σωματῶν, καὶ ἀκροδυσῶν, καὶ λανθάνων, ἀνευ κρεῶν, μετελαμβάνειν*. The eastern Christians, who retired from persecution into the deserts of Egypt and Arabia, allowed themselves but twelve ounces of bread per day, as their only solid food, and water alone for drink: yet they lived long and happy. St. Anthony lived 105 years; James the Hermit, 104; St Jerome, 100; Simon Stylites 109; Epiphanius, 115; and Romauldus and Arsenius each 120.*

Galen, Parre, Francisco, &c.

Galen, one of the most distinguished of the ancient physicians, lived 140 years; and composed between 700 and 800 essays on medical and philosophical subjects: and he was always, after the age of 28, extremely sparing in the quantity of his food. The Cardinal de Salis, Archbishop of Seville, who lived 110 years, was invariably sparing in his diet. One Lawrence, an Englishman, by temperance and labor, lived 140 years: and one Kentigern, called St. Mongah, who never tasted spirit or wine, and slept on the ground, and labored hard, died at the age of 185.† Henry Jenkins, of Yorkshire, who died at the age of 169, was a poor fisherman, as long as he could follow this pursuit, and ultimately he became a beggar, living uniformly on the coarsest and most sparing diet. Old Parre, already mentioned, who died at the age of 153, was a farmer of extremely abstemious habits, his diet being solely milk, cheese, coarse bread, small beer, and whey. At the age of 120, he married a second wife, by whom he had a child. But being taken to court, by the Earl of Arundel, as a great curiosity, in his 152d year, he very soon died, as the physicians decidedly testified after dissection, in consequence of a change

* Cheyne's Essay on Health and Long Life, p. 30. Also Rees' Cyc. Article Abstinence.

† Cheyne On Health, &c. p. 31.

from a parsimonious to a plentiful diet. Henry Francisco, already noticed also, as living to about 140 in this country, was, except for a certain period, when he became attached to ardent spirit, “remarkably abstemious, eating but little, and particularly abstaining almost entirely from animal food: his favorite articles being tea, bread and butter and baked apples.”* A Mr. Ephraim Pratt of Shutesbury in this vicinity, who died at the age of 117 years, lived very much upon milk, and that in small quantity;† and his son, Michael Pratt, attained to the age of 103 years, by similar means. Indeed, great longevity has occurred in no instance with which I am acquainted, where the individual was not a pattern of abstemiousness in diet. Great eaters never live long. A voracious appetite is a sign of disease, or of a strong tendency to disease; and not a sign of health, as is generally supposed. Ill health as infallibly follows the indulgence of such an appetite, as any other effect its legitimate cause.

Dr. Cheyne.

Dr. Cheyne was a celebrated English physician, who flourished more than a century ago. In the early part of his life, he was a voluptuary; and before he attained to middle age, he was so corpulent, that it was necessary to open the whole side of his carriage, that he might enter; and he saw death to be inevitable, without a change of his course. He immediately abandoned all ardent spirit, wine, and fermented liquors, and confined himself wholly to vegetables, milk, and water. This course, with active exercise, reduced him from the enormous weight of 448 pounds, to 140; and restored his health and the vigor of his mind. After a few years, he ventured to change his abstemious diet, for one more rich and stimulating. But the effect was a recurrence

* Siliman's Tour Between Hartford and Quebec, p. 172.

† “For the last sixty years, he tasted no wine or distilled spirits, and for 40 years, ate no animal food.”—*Spofford's Gazetteer of Massachusetts*.—Article Shutesbury.

of his former corpulence and ill health. A return to milk, water, and vegetables, restored him again; and he continued in uninterrupted health to the age of 72. His numerous works are full of most earnest exhortations to temperance in all respects. As to eating, his aphorism was—"A constant endeavour after the lightest and least of meat and drink a man can be tolerably easy under, is the shortest and most infallible means to preserve life, health, and serenity."* He recommends the following quantity of food and drink, as sufficient for a healthy man, not following a laborious employment; viz. eight ounces of meat, twelve of bread, or other vegetable food, and about a pint of wine, or other generous liquor, per day. Invalids, those of sedentary employments, and students, he says, must reduce this quantity, if they wish to preserve their health and freedom of spirits long.

Cornaro.

Lewis Cornaro was a Venetian nobleman, who, by gluttony and dissipation, became so reduced, that at the age of 35, he was given over by his physicians. By their advice, however as a last resort, he reduced his diet to twelve ounces of solid food, and fourteen ounces of wine, per day. The consequence was, not merely a restoration to health, but an almost uninterrupted continuance of it, with a most delightful serenity of mind, to one hundred years of age: as he has beautifully described it, in a little treatise on the subject, abridged from the writings of Cornaro, by Mr. Daggett, formerly principal of the Foreign Mission School at Cornwall in Connecticut. This gentleman also testifies, that at the age of 53, he had found less than 12 ounces per diem, and none of it animal food, abundantly sufficient for himself. Cornaro was prevailed upon at a certain time to increase the quantity of his solid food only two ounces, and his liquid food about as much: and the consequence was, a serious fit of sickness. As he grew quite old, he reduced his food so much,

* Essay on diet and regimen, p. 59.

that it is said he lived several days upon the yolk of a single egg.

The opinion of Mr. Abernethy, one of the ablest English physicians now living, concerning Cornaro's system of dieting, is thus expressed. "When patients apply to me, I offend them greatly by telling them they have their health in their own keeping. If a man were to do as Cornaro did, he would be rewarded for it by a long and happy life. The principal beauty of Cornaro's life was the happy state of mind in which his continued temperance preserved him. Now what I propose as a diet, is Cornaro's diet; and it is no fanciful system. The diet should always be of a moderate quantity; it should not be wholly vegetable or animal, but it ought to be of a nutritive kind."^a

Dr. Johnson's opinion of the necessary quantity of food.

Dr. James Johnson, one of the best medical writers of modern times, and who conquered the most intense degree of dyspepsy in his own person, by rigid attention to diet and exercise, says of the dinner of one laboring under such complaints, when even considerably restored by a more spare diet; "I would strongly advise that the quantity should never exceed half a pound in weight, even when that can be borne without a single unpleasant sensation succeeding. It is quite enough, and generally too much. The invalid will acquire a degree of strength and firmness, not fullness of muscle, on this quantity, which will, in time, surprise his friends as well as himself."[†]

Another physician's opinion on the same point.

Another able medical writer, in his recent work entitled, "*Sure Methods of improving Health and prolonging Life*," &c. has drawn out these rules in a still more particular manner. He gives the following general rule as to the

^a See Note, C.

[†] Essay on the Morbid sensibility of the stomach and bowels, p. 113.

quantity of food, which he judges will be found best for the preservation of health, and the prolongation of life, in the weakly, the sedentary, the invalid, and the aged.

Breakfast.	{	Bread or biscuit,*and butter	Four ounces.
		Tea, &c. in dilution.	Eight Do.
Dinner.	{	Bread or other vegetables	Two Do.
		Meat,	Seven Do.
		Light wine or Malt liquor,	Six Do.
		Water,	Two Do.
Tea.	{	Bread or biscuit, and butter,	Three Do.
		Tea or other liquid,	Eight Do.

In all, during the day, sixteen ounces of solid food, and twenty four ounces of liquid. Dyspeptics, whose digestive powers are greatly weakened, he says, must reduce this quantity: And Dr. Johnson says, that such "will often derive more nutriment and strength from four ounces of gruel every six hours, than from half a pound of animal food and a pint of wine."

In respect to those who are in perfect health, and take much exercise, or labor hard, the author of the "Sure Methods, says," that their "solid food may be increased to twenty ounces, and their liquid to forty: but hardly beyond that with safety."

Quantity of food necessary during severe study.

When literary men are under the necessity of making great and protracted mental efforts, it is extremely important that they pay particular attention to diet; and make not a little reduction in the quantity of their food: for intense application of mind greatly weakens the digestive powers. Gen. Elliott, the defender of Gibraltar, during eight of the most anxious days of the siege, lived upon four

* If I mistake not, the *biscuit* mentioned by this and other English writers, is essentially the same as our *ship bread*, or *pilot bread*, which is unleavened, and very different from what goes by the name of biscuit in this country.

ounces of rice per day. Abstinence, also, quickens the apprehension, gives acuteness to the reasoning powers, liveliness to the imagination, and delicacy to the feelings. A large number, perhaps a majority, of the standard works in English literature, were composed by men whose circumstances compelled them to adopt a very spare diet, and probably this is one cause of their superiority. Dr. Franklin was celebrated, in early life particularly, for his abstemiousness; his meal consisting frequently of a biscuit and slice of bread, and a bunch of raisins only, with a glass of water, or a basin of gruel; and he says, that his "progress in study was proportionate to that clearness of ideas and quickness of conception, resulting from temperance in diet." While Sir Isaac Newton was composing his celebrated treatise on Optics, he confined himself entirely to bread, with a little sack and water. One Mr. Law, famous for his skill in different games, lived several years on half a chicken per day, with about a pound of bread, and drank nothing but water, and by that means, it is said, he won great sums at play.* In President Edwards' Diary, we find it written, January 2, 1722—3 "I think I find myself much more sprightly and healthy both in body and mind, for my self denial in eating drinking and sleeping"—Again, July 7—1722. By a sparingness in diet and eating (as much as may be) what is light and easy of digestion, I shall doubtless be able to think clearer and shall gain time, first by lengthening out my life. Secondly shall need less time for digestion after meals. Thirdly, shall be able to study closer, without wrong to my health. Fourthly, shall need less time to sleep. Fifthly, shall seldomer be troubled with the head ache."

The author of the "Sure Methods," has given a view of what he considers a proper diet for men when engaged in composition. It amounts to twelve ounces of solid food, and twenty of liquid, per day.

* Cheyne's Natural Method of Curing Diseases, &c. p. 82.

Breakfast at Seven	{	Stale bread, dry toast, [†] or plain biscuit, no butter,	Three ounces.
	{	Black tea with milk and a little sugar,	Six Do.
Luncheon at 11 o' clock.	{	An egg slightly boiled with a thin slice of bread and butter,	Three Do.
	{	Toast and water,	Do. Do.
Dinner at half past two.	{	Of venison, Mutton, Lamb, Chicken, or game, (Roasted or Boiled,) 'Three Do.	
	{	Bread (no vegetables)	One Do.
	{	Toast and water, or Soda water,	Four Do.
	{	White wine, or Genuine Claret, (one small glass full,)	One Do.
Tea at seven or eight.	{	Stale bread, biscuit, or dry toast, with very little butter,	Two ounces.
	{	Tea (black) with milk and a little sugar,	Six Do.

Late dinners.

It will be seen, that the preceding arrangement of meals is adapted to the system of late dinners, so common among the higher classes in England; and unfortunately becoming common among us. This is done, not because this medical writer, approves of late dinners: but merely to accommodate, as far as possible, the prejudices and habits of the community. I am very thankful that among this community such accommodation is not necessary; the middle of the day being still our dinner hour. This writer's luncheon of bread and butter, with an egg, may therefore, be joined with his dinner, or neglected altogether.

Wine recommended by European dietetic writers.

You will perceive also, that in nearly all the cases I have mentioned, a portion of wine is included in the bill of fare.—In another place, I shall attempt to show, that water, substituted in its stead, would afford better nourish-

[†] That is, simply toasted bread.

ment, though probably the appetite would not require so much as is here mentioned of wine. But the pernicious habit of drinking wine at meals, I am happy in believing, is becoming obsolete in our country. Yet I cannot but remark, upon the singular inconsistency of the great majority of English writers on dietetics, in recommending or allowing wine to literary men and invalids, while in the same volumes, they unhesitatingly declare, that of all beverages, water is the best! The truth seems to be, they think it allowable to yield this point, to humour the tastes of their readers, provided their readers will attend to their directions in other respects; because they suppose that wine, in moderate quantity, may not be very hurtful. But if they pretend to give the best rules for preserving and restoring health, why should they not have the independence to insist upon those articles of drink which abundant experience has proved most beneficial for this purpose! I have no idea of compromising the truth for the sake of pleasing the palate. If you yield one point, disordered appetite will cry, give, give, until all its desires are gratified.*

Drs. Philip and Paris's rule as to the quantity of food.

Although all respectable medical writers strenuously urge that only a very moderate quantity of food should be taken at meals, yet some of them prefer other methods of ascertaining what is the proper quantity, than by an appeal to weight and measure. Dr. Philip and Dr. Paris recommend, that "the dyspeptic should carefully attend to the first feeling of satiety. There is a moment when the relish given by the appetite ceases; a single mouthful taken after this, oppresses a weak stomach. If he eats slowly and carefully attends to this feeling, he will never overload the stomach."†

Arguments in favor of this rule.

The grand argument in favor of this rule, in preference

* To use wine in wine countries, however, amounts to no more than the use of cider in cider countries.—See Note A.

† Paris on Diet, p. 136—Philip on indigestion, &c. p. 69.

to that by weight and measure, is, that different individuals require different quantities of food; and therefore, no definite quantity can be fixed upon. And it is, indeed, true, that the man who is in vigorous health demands more than the feeble invalid—he who exercises vigorously abroad, more than the man confined to his study or his shop—the middle aged man, more than the infant or the aged—the man of large athletic stature, more than one of small and delicate frame, and men more than women, &c. But leaving out of the account those very young, and those very old, as well as very feeble invalids, and including only those in youth or manhood, whose health is good enough to permit them to attend more or less to sedentary or literary pursuits, I cannot conceive how it is possible that their constitutions should differ very much in respect to the quantity of nourishment necessary to the system. The organs of digestion are the same in all, and the process by which food is converted into blood and animal matter is the same; and the causes that operate to wear out the system are essentially the same. Why then, should one of them require very much more nourishment than the rest; except that those in health, who exercise daily and vigorously in the open air, will doubtless demand a larger portion; and to such, the rule of weight I have mentioned, allows one quarter more than to the studious and invalids.

But since it is by all admitted, that there is some difference in the quantity of food and drink necessary for individuals, similarly situated, what is the objection against this rule of Dr. Philip, viz. that every man should eat till he begins to feel satisfied? Those in vigorous health, whose natural appetites have never been depraved by excess, or the arts of cookery, may perhaps be tolerably safe in adopting this rule, provided they rigidly observe two things; first, to eat only of one dish; and secondly to occupy at least half an hour at every meal. But I am perfectly satisfied that this rule alone will not answer for invalids; for any, especially, who are in the least dyspeptical, and who

have that unnatural and inordinate appetite, which almost invariably accompanies such complaints. Dr. Philip remarks, that "there is a moment when the relish given by appetite ceases; a single mouthful taken after this, oppresses a weak stomach." "It should be observed," says another physician, "that a single mouthful taken after a certain quantity has been swallowed, and much before the relish given by the appetite ceases, will very often infallibly oppress a weak stomach, although the individual may not be sensible of it at the time, or for some hours after." This ravenous appetite of invalids may be reckoned among the daughters of the horseleech, mentioned by Solomon, crying give, give, and is never satisfied, until it has ruined the constitution. A man afflicted with it, will eat, and eat, even of a single dish, until he has fully established his title to the name of glutton. Without some other security, therefore, than this rule of Dr. Philip's, such persons, and they are numerous, even among those who scarcely suspect that they are dyspeptic, will surely destroy themselves.*

Nor ought it to be forgotten here, how very rare it is to find persons, even among the healthy, who retain a natural appetite. "Unfortunately," says the *Journal of Health*, a work conducted by some of the ablest physicians in our country, "there are but few individuals whom the luxurious refinements of civilized life have not entirely deprived of this simple and unerring guide; and who, by obeying the irregular and inordinate cravings which they experience, do not become the subjects of suffering and disease." The long use of high seasoned food and a variety of dishes, has rendered the appetites of most men artificial. Now I ask the healthy man, who sits down to a dinner of a single

* "Now all this sounds very well in theory, but I unhesitatingly assert that it (Dr. Philip's rule) will not answer in practice. Governed by this rule, too much will be constantly eaten, and I appeal to every dyspeptic of observation for the correctness of this statement."—*Dyspeptic's Monitor*, p. 97.

dish, cooked in the simplest manner, whether he will not satisfy his appetite sooner than he would, if a second, a third, and a fourth dish, rich and deliciously cooked, be brought forward? Which appetite, then, shall he take for his guide, as to the quantity of his food? that which he has for one simple dish, or that which he has for half a dozen? Does he reply, I will take that which I feel for the single dish as my guide: then I have few fears but he will be a temperate, abstemious liver; and I shall not contend with him about the soundness of his rule: But where in modern society, can he find a table spread with this patriarchal simplicity? No where; unless he spread it for himself alone. Perhaps he will say, that there is no harm in partaking of two or three dishes; and he will make it his rule to confine himself to these. But another man will say, I find that four or five do not injure me: and the glutton will say, that half a dozen are necessary for his constitution; and even if there be a greater number, he never eats more than his natural appetite craves; for the glutton regards his appetite as natural, as well as other men. Now can a rule, which thus varies with the temptation; a rule, which is even so broad as to justify the glutton: is such a rule a safe one, particularly for students, who ought to be the most abstemious of men?

Dr. Johnson's rule on this subject.

If I mistake not, however, there is a rule suggested by Dr. Johnson, for ascertaining the quantity of food necessary for each individual, that will come in as an important auxiliary to either of the rules I have mentioned. He would have every one, particularly the nervous invalid, judge of the quantity of food and drink necessary for himself, by its effects, rather than by satiety of appetite, or by the weight. "Whenever our drink induces sensible excitement in the system," says he, "or our food is followed by an inaptitude for mental or corporeal exertion, we have transgressed the rules of health and are laying the foundation for disease."—

"Any discomfort of body, any irritability or despondency of mind, succeeding food and drink, at the distance of an hour, a day, or even two or three days, may be regarded, (other evident causes being absent,) as a presumptive proof that the quantity has been too much, or the quality injurious."—"If a few hours after his dinner he feel a sense of distention in the stomach and bowels, or any of the symptoms of indigestion which have been pointed out; if he feel a languor of body, or a cloudiness of the mind; if he have a restless night; if he experience a depression of spirits, or irritability of temper next morning, his repast [dinner] has been too much, or improper in kind, and he must reduce and simplify till he come to that quantity and quality of food and drink for dinner which will produce little or no alteration in his feelings, whether of exhilaration immediately after dinner, or of discomfort some hours after this meal. This is the criterion by which the patient must judge for himself."*

To the same effect is the testimony of Cheyne. "If any man," says he, "has eat or drank so much as renders him unfit for the duties and studies of his profession, (after an hour's sitting quiet to carry on the digestion,) he has overdone."†

Proper effect of food upon the system.

In order fully to understand this rule of Dr. Johnson, it will be necessary to state, what probably many have never learned from their own experience, that the natural effect of eating is to give an immediate vigor to the mind and strength to the body. Hence any languor and stupidity after meals, if not preceded by fatigue, show that the stomach is overloaded. Hear the testimony of Cornaro on this point. "My spirits are not injured by what I eat; they are only revived and supported by it. I can immediately on rising

* Morbid Sensibility of the Stomach and Bowels, pp. 92 and 110.

† Essay on Health and Long Life, p. 38.

from the table, set myself to write or study, and never find that this application, though so hurtful to hearty feeders, does me any harm. And besides I never find myself drowsy after dinner, as a great many do: the reason is, I feed so temperately as never to load my stomach, or oppress my nerves; so that I am always as light, active, and cheerful, after dinner, as before.”*

Here then is no bad criterion for a man, whatever be his constitution or health, for determining just that quantity of food and drink, which he needs to give the greatest vigor to his body and mind. He must reduce the quantity until his meals are followed by none of those effects upon the mind or the body, which have been mentioned. When he has ascertained that quantity, he should religiously adhere to it, as nearly as possible, in all situations.

Use of weighing food.

Of what use, then, is it to weigh out a given quantity of food and drink, according to the first rule? The use is very great. That rule gives us the medium quantity of food and drink, (viz. from twelve to sixteen ounces of the former, and from fourteen to twenty four of the latter, per day,) which physicians have deduced from all the experiments that have come to their knowledge, as necessary for health, and vigor of body and mind in those of sedentary and literary habits. Now let every man just weigh out this quantity—let him take the largest if he please, and in nine cases out of ten, it will show him that he is in the daily habit of eating and drinking at least twice as much as is necessary for a temperate man in like circumstances. He will be astonished to find that he eats so much more than he had supposed; and having thus learnt how to estimate by the eye, what is the proper quantity for him to eat and drink, he can lay aside the balances and judge by the eye in future with sufficient exactness. Let him immediately

* Life of Cornaro, p. 27.

reduce his diet to this quantity, and make a trial of it for a month or two. The immediate effects will be, in most cases, an unexpected freedom and activity of mind after meals, and a gradual improvement of the health ; and the ultimate effects, if no fatal disorder is seated in the constitution, will be confirmed health, and an increased capacity for intellectual efforts, with a serene and lengthened old age, and finally a gentle discharge from life.

This is starvation !

Instead of persuading you, my hearers, to adopt this course, I fear that some will exclaim, 'This is starvation ! this is the sure way to make me weak and puny ! I have no idea of reducing myself to a skeleton while I have an appetite. Lewis Cornaro is no rule for me. I must eat and drink for myself, without his balances or his spectacles.

If the person who makes such an answer is in vigorous health, I shall not stop to argue the subject with him ; although perfectly convinced that by taking this first grand step in the course of temperance, he would add from thirty to fifty years to his life, and much to his happiness. But if he is a person of feeble health, already attacked by nervous complaints, I would earnestly entreat him to pause a moment before he resolves to reject the only method by which he can hope to regain his lost vigor, and retain it. Are you sure that sixteen ounces of solid food and twenty-four of liquid per day, would be starvation ? How do you know it ? Have you tried it for any considerable length of time ? Very many others have tried it through life, and found it sufficient, nay, most of them found it too much for them : will you pay no deference to so many fair experiments ? Suppose that for a time you should be compelled to suffer not a little from a craving appetite, which, having been educated to receive an enormous load, knows not why it may not be indulged still, to the same extent ? Will a feeling of hunger, when not excessive, compare with the pains of disease, or with the tormenting uneasiness of dys-

pepsy? Can the suffering be compared to the immense good that will result to you?—health,—vigor,—long life? “If we attentively consider the last scenes of most people,” says an eminent physician, “and how it is that they die, and with what symptoms they expire; we shall constantly find it to be of the too much, the too high, or too hot; and not of the too little, or too cool.”* And yet you fear starvation, if allowed no more than what has supported many scores of men to extreme old age.

Quantity of food necessary to support life.

How much food do you suppose is necessary to the support of life? Let physicians give the answer. “The quantum contained in two eggs, some say one, administered each day,” observes a medical writer, “will keep a man alive and pretty well for six months.”† “No person,” says another, “is in danger of starvation, who can take a pint, nay, only half a pint, of good gruel in the twenty four hours.”‡ Is there then probably much danger of starvation upon a quantity five or six times larger than either of these?||

The quantity too small for muscular and mental vigor.

But if not actual starvation, you reply, that the quantity, of which I have spoken, is not sufficient to give the greatest muscular vigor to the body, and activity and energy to

* Cheyne’s Natural Method of Curing Diseases, p. 73.

† Southern Review, August, 1827, p. 244.

‡ Johnson on Morbid Sensibility, &c. p. 112.

|| *Extract of a letter from a lady in Vassalboro’, Maine, dated March, 1830.*—A lady in this place reduced her diet to a piece of cracker as large as a cent, and the juice of a piece of beef an inch in size, and half a tea cup of milk and water. This was a meal; and she was allowed four such a day, and not a particle of any thing between her meals. That little digested, and yielded a little strength. Persevering a few months in this way, she was raised from an almost hopeless state, to very good health; but it was tedious, and she suffered exceedingly from hunger and thirst.

the mind. A person confined to so small a quantity, will become weak and puny, incapable of great bodily or mental efforts. And how do you know this? Have you ever fairly tried the experiment? I suppose, indeed, that when a person first reduces the quantity of his food so much as must generally be done, to come down to rigid temperance, he will, for a time, feel a considerable degree of faintness, accompanied with a sense of weakness. And it is for precisely the same reason that the drunkard, who abandons his cups, feels a depressing sense of faintness and weakness. For too much, or too hearty food stimulates the digestive organs, and the whole system, indeed, as well as ardent spirit. And the withdrawing of this stimulus, in either case, produces similar effects. But a perseverance in such a diet for a few weeks or months, will, I am persuaded, satisfy a man that his strength of body and mind have gradually and greatly increased. Indeed, it is only because I believe that the quantity of food I have mentioned, will give to sedentary men the greatest amount of strength of which their bodies are capable, while their habits are sedentary, that I urge such to confine themselves to it. The proofs on which I rest this belief are the testimony of able physicians and of others who have faithfully tried the experiment.

Testimony of Cheyne.

“There is nothing more ridiculous,” says Cheyne, “than to see tender, hysterical, and vaporish people, perpetually complaining, and yet perpetually cramming; crying out, they are ready to sink into the ground, and faint away, and yet *gobbling* down the richest and the strongest food, and highest cordials, to oppress and overlay them quite.”*

Of another physician.

Says another physician, “They who love to eat, will use ingenious arguments to convince themselves that they re-

* Essay on Health and Long Life, p. 115.

quire more food than is thus allowed them. They will declaim against starvation and their friends will join them; they will complain that it produces faintness, and weakness and renders them unfit for the active duties of life. This is all delusion, all willful self deception. More nourishment and strength are imparted by six ounces of well digested food, than by sixteen imperfectly concocted.”*

Opinion of Dr. Johnson.

“There is a great error committed every day,” says Dr. Johnson, “in flying to medicine at once when the functions of the stomach and liver are disordered, the secretions unnatural, and the food imperfectly digested. Instead of exhibiting purgatives day after day to carry off diseased secretions, we should lessen and simplify the food, in order to prevent the formation of these bad secretions. In doing this we have great prejudices to overcome. The patient feels himself getting weaker and thinner; and he looks to nourishing food and tonics for a cure. But he will generally be disappointed in the end by this plan. From four ounces of gruel every six hours, he will under many states of indigestion, derive more nutriment and strength than from half a pound of animal food and a pint of wine.”—“I have known dyspeptic patients gain flesh and strength on half a pint of good gruel thrice in the twenty four hours.”—“The invalid will acquire a degree of strength and firmness not fullness, of muscle on this quantity, (half a pound of food at dinner,) which will in time surprise his friends as well as himself.”†

Says another physician, “a small quantity of food does not only ward off disease and prolong life, it likewise preserves the bodily strength; and it will, therefore, be found universally, that, (*cæteris paribus*) those aged persons who consume the least food in moderation, are the strongest.”

* Southern Review, August, 1829, p. 224.

† Morbid Sensibility, &c.

Training of pugilists.

The practice of training men for pugilistic combats, though most reprehensible in a moral point of view, has thrown much light on the subject under consideration. The rules these trainers adopt to bring the pugilist, "to the top of his condition," as it is called, that is, to give him the greatest possible strength, are essentially the same in respect to diet, as those which I have laid down; although a rather larger quantity of food is allowed than is necessary for literary men, because these pugilists constantly exercise in the open air. The effect of this training is usually, to reduce the weight, especially if the individual at all inclines to corpulence, but wonderfully to improve the strength, symmetry, and beauty, of the corporeal frame. The trained boxer is no longer liable to dizziness from the heaviest blows: his lungs are surprisingly strengthened, so that he can hold his breath longer, and recover it sooner, after it is in a measure lost: his appetite becomes keen, so that not the least uneasiness results from food: his bones become so strong that they are with difficulty broken; and his nerves are so remarkably invigorated, that it is said, no trained person was ever known to become paralytic, or to suffer long from nervous depression.

Dr. Jackson, the physician already referred to, who by living on a spare diet, of vegetable food only, without ardent spirit or wine, "wore out two armies in two campaigns," asserts that soldiers "endure labor and hardship better on a simple and spare diet, with tea for drink," than by full feeding, with ardent spirit.*

To all these authorities, I could add that of the individuals already mentioned, who through a long course of years found a very small amount of food abundantly sufficient for preserving body and mind in the utmost vigor. And is all this testimony to be set aside as of no weight, while he who

* American Almanac for 1830, p. 129.

sets it aside, has nothing but his own feelings to oppose to it? If you say that you have made the trial and it has failed; I wish to enquire, in the first place, did you reduce the quantity of food until every unpleasant feeling, that follows excessive eating, disappeared? Did you reduce it as low as Cornaro's standard, viz. twelve ounces of solid food per day? Did you persevere in this course for months? Did you at the same time exercise as much as before in the open air? Were your habits in every other respect abstemious and regular? And finally, did you live wholly on a vegetable diet? If you cannot answer all these questions in the affirmative, then your experiment was not a fair one, and will weigh nothing against the decided testimony which I have exhibited on the other side.

Bad effects of eating a little too much.

But perhaps some one will say, that he cannot believe any very bad effects will result from eating a few ounces more than is necessary for perfect health and vigor, and, therefore, all this parade about eating and drinking is unnecessary nicety. He cannot believe that men would suffer any more from eating and drinking, until their natural appetite is satisfied, than the brute creation does, whose hunger is their only standard as to quantity. In short, he conceives the evil against which I am contending, is rather imaginary than real, and that a general adoption of the rules for which I plead, would have but little effect in improving health, or lengthening life.

Case of Cornaro.

As to the effect of eating too much, even in very small quantity, we have a very instructive instance in Cornaro. His friends, and physicians too, persuaded him at the age of 75, against his judgement, to increase the quantity of his solid food, two ounces, and his liquid food as much. "This increase," says he "had, in eight days" time, such an effect upon me, that from being remarkably cheerful and brisk, I

began to be peevish and melancholy, and was constantly so strangely disposed, that I neither knew what to say to others, nor what to do with myself. On the twelfth day, I was attacked with a violent pain in my side, which held me twenty two hours, and was followed by a violent fever which continued thirty five days, without giving me a moment's respite." This was the only sickness with which he was visited, from the time he entered upon his temperate course, till his death; a period between sixty and seventy years.

Of Parre and Cheyne.

Old Parre, as already mentioned, lost his life by increasing the quantity, and changing the quality of his food; and Cheyne was visited anew with his former complaints, as soon as he relaxed a little in his abstemious diet.

Of Lloyd.

The following instance is taken from an old medical writer, in his own words.

"Mr. John Bill related too, that Richard Lloyd, born two miles from Montgomery, was aged one hundred and thirty-three years within two months; a strong, straight, upright man; wanted no teeth, had no grey hair, it all being of a darkish brown color; could hear well, and read without spectacles; fleshy and full cheeked, and the calves of his legs not wasted and shrunk; he could talk well. He was of a tall stature; his food was bread, cheese, and butter, for the most part; and his drink, whey, buttermilk, or water, and nothing else; but being by a neighboring gentlewoman persuaded to eat flesh meat, and drink malt liquor, soon fell off and died. He was a poor laboring man in husbandry."

I cannot withhold the very judicious remarks of the Editors of the Journal of Health upon this case:

"The good lady above mentioned, no doubt thought that this old man ought to have more nourishing and strengthening food than what had so long preserved him in excel-

lent health. It is thus with the world generally. In the very face of the plainest experience, people force their nostrums, and their good dishes, and nice cordials, on a complaining friend, who, becoming worse under this kindness, is after a while transferred to the hands of the doctor, as if it were in the power of any man, however learned and skilful, to remove by the aid of a few drugs, the effect of years of sensual indulgences."

Nor can I neglect to give the concluding remarks of the original relator of the facts—addressed to his cotemporaries :

"A hundred examples," says he, "of this kind, may be found to confirm the doctrine of temperance and cool diet, as necessary to the prolongation of life: but if an angel from heaven should come down and preach it, one bottle of Burgundy would be of more weight with this claret-stewed generation, than ten *tuns* of arguments to the contrary, though never so demonstrable and divine."

Remote effects of eating too much rarely understood.

Such facts conclusively show the danger of injuring the health by even a slight excess in the use of food. But men do not perceive the bad effects of over feeding, because in general they are ignorant of their character, and confine their attention to the more immediate effects instead of looking at those which are remote. They generally suppose, that if the stomach, or any internal organ, be oppressed, or disordered, pain will be produced in the organ itself: whereas, the uneasiness and pain are most commonly in some other part, not unfrequently a remote part of the body. And oftentimes food, which ultimately does the man a great deal of injury, gives to the stomach a transient relief, just as piling a large quantity of wood upon a fire, seems for a time almost to extinguish it. Thus, the dyspeptic is oppressed with a sense of gnawing, and faintness at the stomach, previous to his meals. The immediate consequence of eating to satiety, is, to remove this uncomfortable sensa-

tion, and to produce a glow in the system, which, at first, is not disagreeable. Hence such a man concludes that his hearty meal has done him good. True, he feels an indisposition to bodily or mental effort, and perhaps drowsiness and sleep come over him for two or three hours; but this he considers as no bad omen: indeed, his nap refreshes him for the time, and although the thought may enter his mind, that perhaps he has eaten rather too much, should headach or heartburn come on, yet by a cup of tea, or a little exercise, he gets rid of these, and fancies that when he has forced the food from his stomach, no farther bad effects will result from a little excess in quantity. Should he have disturbed sleep and restlessness, the nightmare, or unpleasant dreams, the following night, he scarcely thinks of referring the mischief to the dietetic excesses of the preceding day. His appetite is good the next day, and he takes the same course, viz. to eat as much as his stomach craves: and although overloaded nature raises those signals of distress which I have mentioned, he is ignorant of their meaning, until after a few weeks, or months, when gloom and jealousy enshroud the mind, as forerunners of the storm that is about to burst. Yet the man never thinks of imputing these feelings to his excess in eating, although, in fact, they are the direct consequence; and, indeed, I am more and more convinced, that most of the depression of spirits, that accompanies nervous complaints, might be prevented by rigid abstemiousness in diet.

Another remote consequence of eating too much, is uneasiness and irritability of temper, especially in the morning; which most men never regard as having such an origin. "The greatest gluttons we ever beheld, (except one,)" says a medical reviewer,* "were meagre men, whose tempers became so crabbed, that even their children have wished them dead. That these are real dyspeptics is proved by their cure being practicable, if they are subjected to the same regimen which dyspeptics require."

* Southern Review, August, 1829, p. 128.

Curious example.

Dr. Johnson mentions a curious case illustrative of this effect of excessive eating upon the mind. He had a hypochondriacal patient, who "was every second day affected with such an exasperation of his melancholy forebodings, that he did nothing but walk about his room, wringing his hands, and assuring his servants that the hand of death was upon him, and that he could not possibly survive more than a few hours. Under these gloomy impressions he would refuse food and drink, and, in fact, give himself up for lost. The succeeding sun, however, would find him quite an altered man. The cloud had broken away; hope was re-kindled; and the appetite for food and drink was indulged *ad libitum*. Next morning all would be despair, and nothing but death could be thought of. So he went on, as regular as light and darkness. But if on the good day, he could be kept on a very small portion of food, and the bottle unopened, the next would be good also. This, however, could seldom be done, for as soon as he felt a respite from his miseries, procured by one day's abstinence, he returned to his indulgences, and again irritated his stomach and bowels, and through them reproduced the blue devils in the mind."*

Final result of excessive eating.

After nature has thus sent out for some time the groans, which a too heavy load extorts from her, and the man heeds them not, but continues to pile on more and more, she refuses to proceed; and deluges him with all the pains of a severe dyspeptic attack. He flies to the physician for help. The emetic or cathartic usually relieves the burdened and clogged powers of digestion; the appetite gradually returns; it is again indulged to excess, and the same scene is acted over again, and the morbid secretions are formed, and again removed by medicine. But each successive time, the sto-

* Morbid Sensibility, &c. p. 105.

mach and bowels become weaker, and disease gets more and more firmly hold of the constitution. If the man discovers soon enough that the root of his whole difficulty is his intemperance in eating, he may, if he will, save himself from morbid secretions and the physician's hands, by rigid abstemiousness. But if otherwise, organic disease gradually supervenes and closes his days.

Process of digestion.

When food is taken into the stomach it is converted into a pulpy mass, called chyme. If the quantity be too great, of course this process is but imperfectly performed; as the gastric juice is not sufficient for the whole work. The consequence is, that imperfect chyme will make imperfect chyle, the second state into which food passes; and imperfect chyle will produce imperfect blood; and imperfect blood will produce morbid secretions;—the blood will be too much in quantity, and poor in quality: and hence the system will be but imperfectly nourished. Hence, too, we see why a small quantity of food affords more nourishment than a quantity too large, viz. because the former is perfectly and the latter imperfectly, converted into flesh and blood. Nature must make a great effort to get rid of the superabundance with which she is deluged. Hence she will force through the pores of the skin, fetid sweats, and load the alimentary canal and every part of the system, with every kind of morbid secretions. We see hence, why the men, who gormandize most, are generally pale and emaciated: though sometimes the excess of nourishment is converted into fat, which seems generally to be a morbid secretion.

Can we, like the brutes, take appetite for a guide?

As to man's following the example of the brutes, by eating as much as the appetite craves, it will not help the argument much to take the domesticated animals for a standard: for their imitation of man, or some thing else, has giv-

en them an appetite somewhat too voracious; as every farmer knows, whose cornfield, or granary, has been broken open by his horse or ox. And as to the wild animals, they cannot properly be considered as examples, until man shall get rid of his factitious appetite, and will consent to live in the open air like them, and abjure all mental efforts; in short, to become a brute in every thing but shape, which according to Cicero, is a genuine transformation: *Quid enim interest, utrum ex homine se quis conferat in belluam; an hominis figura immanitatem gerat belluæ?** And were this done, I think that even the voracious dyspeptic would not judge it safe for a being, who was once a student, to imitate the musquito, that quietly resigns life for the pleasure of sucking its fill; nor even the Siberian glutton, which, though not much larger than a dog, was not satisfied with thirty pounds of flesh per day.†

Is the evil contended against, imaginary?

But the evil against which I contend, is thought to be imaginary. Let us hear some testimony on this point.

It is a prevalent opinion, that persons of rather feeble health, especially such as are on the gaining hand, should take food in generous quantity, and of nourishing quality, in order to gain strength; and hence their kind friends will tempt their craving appetites, as much as possible, by food nicely cooked, and by persuasion; and very commonly they yield to the solicitation, but rarely without reaping the bitter results.

Case of Clement.

To this course, the amiable and pious Clement, an English youth, whose name is probably familiar to some of you, fell a sacrifice. At the age of eighteen, his health declined rapidly, with symptoms of a consumption. But by rigid adherence to a

* Cic. de. off. L. 3—20.

† Smellie's Philos. Nat. Hist. p. 150,

milk and vegetable diet, without spirit, or wine, he, in a short time, regained his health. But returning to his former liberal diet, his disorder returned also, with giant power, and soon laid him in the grave,—the real victim of intemperance; though nothing was farther from his thoughts, or those of his friends, than that he was intemperate.*

Of Mr. Vinall.

It is well known that a voracious appetite generally accompanies a recovery from fevers; and who has not known instances of fatal relapses by indulging it! It was the misfortune of Mr. Vinall, one of the first missionaries to the Osages, to be cast on the care and kindness of a Christian lady, after a severe sickness. With the best intentions, she plied him with rich and tempting food. He partook of it immoderately, and thus brought on an attack of apoplexy, which terminated his life.†

Do men generally eat too much?

As it respects invalids, then, the evils of excessive eating are not imaginary. How is it with mankind in general? “There are few,” says the author of *Sermons to the rich and studious*, “who do not eat one third or a fourth more than is necessary to support them.”‡ “In general,” says Dr. Franklin, “mankind, since the improvement of cookery, eat about twice as much as nature requires.”|| “We may safely take it for granted, after long observation,” says an American medical reviewer, “that almost every man, woman, and child in this country, habitually eats and drinks twice as much every day, on a moderate estimate, as is necessary.”§

* Daggett's life of Cornaro, &c. p. 59.

† Daggett's life of Cornaro, p. 51.

‡ Do. p. 48.

|| Do. p. 42.

§ Southern Rev. Aug. 1829, p. 221.

Such I believe is the almost unanimous opinion of all who are qualified to judge of this subject. Now what is the effect of such enormous gluttony? Let the answer be well considered by those who imagine I am fighting with shadows.

“Most of all the chronical diseases, the infirmities of old age, and the short periods of the lives of Englishmen,” said Dr. Cheyne, more than a hundred years ago, “are owing to repletion.”*

“I tell you honestly,” says Mr. Abernethy, “what I think is the cause of the complicated maladies of the human race: it is their gormandizing, and stuffing, and stimulating their digestive organs to an excess, thereby producing nervous disorders and irritation. The state of their minds is another grand cause; the fidgeting and discontenting yourself about that which cannot be helped; passions of all kinds—malignant passions, and worldly cares pressing upon the mind, disturb the cerebral action and do a great deal of harm.”†

“It is the opinion of the majority of the most distinguished physicians,” says another medical writer, “that intemperance in diet, destroys the bulk of mankind: in other words, that what is eaten and drank, and thus taken into the habit, is the original cause of by far the greater number of diseases which afflict the human race.”‡

Acute diseases often the consequence of intemperance in food.

Is such decided unbiassed testimony as this to go for nothing? Will any one still contend that attention to diet is unnecessary? that the monster who is cutting down “the bulk of mankind” is a chimera of the brain? The truth is, God has so constituted the human frame, that if properly treated, it will endure to old age, and rarely, if ever, be subject

* Essay on Health and Long Life, p. 32.

† Southern Rev. Aug. 1829. p. 215.

‡ Sure Methods &c. p. 78.

to the attacks of disease. Disease, in a plurality of cases, is the consequence of intemperance in diet; that is, excess in eating or drinking. A person dies of a fever, or of apoplexy, or other violent disorder, and men generally consider it as his unavoidable fate: whereas, in the majority of instances, it is the consequence of long continued excess in diet. Had the man followed the rules on this subject, which experience has pointed out as safe, probably he would have escaped the acute disease that ended his days, and in extreme old age, have sunk by mere decay.* But most people regard a full habit, a florid countenance, and strength of muscle as sure marks of health. Whereas, in nine cases out of ten, such a person cannot endure half as much hardship as a lean and seemingly feeble man: And the reason is, that the full habit of the former, is commonly the effect of excess, either in eating or drinking, and the powers of life have been urged on so fast, that they give way to comparatively slight shocks.† This vigour, indeed holds out for a time; but it is by drawing upon the powers of life, through the stimulus of rich and strong food, or drink: and thus the constitution is preparing to give way to the first attack of a violent disorder. "Look," say those who decry abstemiousness, "look at Mr.———: he does not live like an ascetic: What do you think, Doctor, of his robust frame and florid face." No answer! After the lapse of a few years, perhaps months, from the date of this question, the doctor is solicited to visit this model of health, whom he finds deprived of the use of one side of his body,—jokes no longer come trippingly on his tongue; it feebly and tremblingly articulates the commonest replies."‡

Intemperance in diet defined.

I would not be understood as saying, that every person who at all exceeds 12 or 16 ounces of solid, and 14 or 24 of liquid food per day, is an intemperate liver. But I do say,

* See Note D. † See Note E.

‡ Journal of Health vol. 1. p. 18.

that *he who eats or drinks more than is necessary to give to the body and mind the greatest degree of health and vigor, is intemperate.** This is essentially the rule given by Cicero —“*tantum cibi et potionis adhibendum, ut reficiantur vires, non opprimantur.*” And I do firmly believe, on the best testimony, that scarcely any sedentary or literary man, who will make a fair trial, will find that he can much exceed the quantity mentioned above, and keep within the bounds of temperance.†

Appeal to the friends of temperance.

Need any literary youth, therefore, think it strange, that I press this subject with great earnestness upon the attention of this audience. If I cannot persuade you, my hearers, to adopt some constant rule, as to the quantity of your food and drink, all my efforts, in respect to other parts of diet and regimen will be almost in vain. The corner stone will be wanting, and the superstructure can never stand. I appeal, therefore, to the friends of temperance, and entreat them to extend the principles, which they have so nobly adopted and defended, in regard to ardent spirit, to food also. If you admit that man to be intemperate, who uses ardent spirit, when it is unnecessary for health and vigor of body and mind, how can you consider him in any other light, who eats more than is necessary for the same purpose? You very reasonably suspect that the man, who will not even make the trial of living for a time without spirit, to prove whether it is necessary, you justly suspect that he fears he shall be convinced that it is unnecessary; and that he is inordinately attached to it? Am I unreasonable, then, in entertaining a similar suspicion in regard to

* “Intemperance is excess of any kind, and is applied to every function and action of both body and mind.”—Journal of Health vol. 1. p. 205.

“Temperance, is moderation in things not hurtful, and abstinence from those which are.”—Pierson’s Address. p. 4.

† See Note F.

you, if you will not take the pains to ascertain whether you are not intemperate eaters? And is intemperance in drinking any more criminal in the sight of God, than intemperate eating? or is it less injurious in its ultimate effects upon the individual? Who shall decide between the guilt and the misery of the drunkard and the glutton? Extend, I say, your principles of temperance to your whole diet, or else abandon them altogether.

Appeal to literary men.

As literary men—as those who intend to rise high in the learned professions—I call on you to make trial of the principles I have advocated. If you are intemperate eaters, you will as certainly blunt the powers of your intellect, and fail of accomplishing any thing noble in literature and science, as if you were intemperate drinkers. How do you know but you are already ignorantly intemperate in food? Why shrink from ascertaining the fact? Of all men in the world, you ought to be the last to become slaves to appetite. You have food to eat of which the ignorant multitude know nothing. Let them riot, if they will, in luxurious living: but you have chosen a nobler lot, and provided you have food enough to repair the wastes of nature, and sustain the health and vigor, you ought to despise the low ambition of those who live only to eat; and you should preserve a philosophical indifference as to the luxuries of the table. While ambrosia and nectar are within your reach, do not, I beseech you, become companions with swine on the dung hill.

Appeal to Christians.

I call on you as Christians, also, to reduce the quantity of your food to the standard of temperance. I see not a few here, who have, as I believe, sincerely devoted themselves to the service of God: and who desire to do as much as they are capable of doing, for his cause. And it ought not

to be concealed, that such young men have oftener failed in their health, than almost any other class, as the records of the American Education Society will show. Most of them, having been accustomed to active habits before commencing study, and beginning rather late, make great efforts to advance rapidly : but the change is too great for the constitution. Dyspepsy creeps on, with its unnatural appetite, and not knowing but they may indulge it, they not unfrequently are compelled to abandon their object. But in nine cases out of ten, rigid temperance and exercise would have saved them. Let not, then, such a young man talk of his desire to do all the good he can in the world, if he is not willing to abandon his intemperate habits at the table. Let him not talk of the Christian ministry, until he can learn to live as abstemiously as a philosopher. For the bible testifies, *Every man that striveth for the mastery, is temperate in all things.* I do not contend for excessive and hurtful abstinence ; this is quite as injurious as repletion : but I do plead for a reduction to the standard of health, which in most cases, as we have seen, will be a reduction of nearly one half. I say that every Christian is accountable to God for exceeding this standard ; and I tremble for him who persists in following his voracious appetite, instead of the rules of temperance.

Ground of hope.

In conclusion, let me say, that I have little hope of the thorough and effectual reformation of any one, in this respect, who does not look to a higher source of strength and resolution than can be found in himself. But let him take the course that Cornaro did, and he may hope to be triumphant—"I must confess," says he, "that it was not without great reluctance that I abandoned my luxurious way of living. I began with praying to God that he would grant me the gift of temperance ; well knowing that he always hears our prayers with delight. Then considering, that

when a man is about to undertake any thing of importance, he may greatly strengthen himself in it by often looking forward to the great pleasures and advantages that he is to derive from it : just as the husbandman takes comfort under his toils, by reflecting on the sweets of abundance ; and as the good Christian gladdens in the service of God, when he thinks on the glory of that service, and the eternal joys that await him ; so I, in like manner, by reflecting on the innumerable pleasures and blessings of health, and beseeching God to strengthen me in my good resolution, immediately entered on a course of temperance and regularity."

LECTURE. II.

DIET, continued. *Second Rule of Dietetics. Attempt to disprove it. Great Excesses in eating, in this country. The rule peculiarly necessary for Invalids. Examples for their encouragement. Abstinence. Cold or catarrh. Concluding Remarks.*

Second Rule of Dietetics.

AT the last Lecture, Gentlemen, I confined myself solely to preliminary remarks, and to the illustration, defence and application of the first rule of dietetics, which requires that the quantity of food, taken at any one meal, should be very moderate. If any apology was due for dwelling upon this point so long, and urging it so strenuously, it exists in the vast importance of that rule; lying, as it does, at the very foundation of the whole subject. Yet the second rule, to which I proceed without preface, approximates in importance to the first; especially when we view the two in connexion.* It may be thus briefly expressed:

THE LESS VARIETY OF FOOD AND DRINK AT ANY ONE MEAL, THE BETTER.

*First Reason for the rule. **

This rule is as old as Hippocrates, the cotemporary of Socrates, and the father of medicine. *Τά γὰρ ἀνομοία στασιαζει* says he: and the very sound of this verb, *στασιαζει*, represents not inaptly, the commotion produced in the stomach by the introduction of a variety of incongruous substances together. This is, indeed, one of the principal reasons

* Note G.

for the rule under consideration. The gastric juice has not the power of dissolving a mixture of various substances, so perfectly as a single one: indeed, this is the case with all solvents, even the most powerful: though we ought not probably to consider the action of the gastric juice upon food, as a mere chemical solution. The principle of life is so intimately concerned in the process, and so modifies it, that the term solution does not fully describe it. The process of digestion seems to be partly chemical, partly mechanical, and partly mysterious. Hence Dr. Hunter facetiously remarks, in his Lectures; "Some will have it, that the stomach is a mill: others that it is a fermenting vat; others again that it is a stew pan; but in my view of the matter, it is neither a mill, a fermenting vat, nor a stew pan—but a stomach, gentlemen, is a stomach." Shakspeare has a better description of it.

"It is the storehouse, and the shop
Of the whole body. True it is,
That it receives the general food at first :
But all the cranks and offices of man,
The strongest nerves and small inferior veins,
From it receive that natural competence
Whereby they live."

Facts accord with the rule.

But though we may not perfectly understand the whole rationale of digestion, we do know, because experience teaches us, that the more simple the food is, which the stomach receives—that is, the fewer the kinds are, that are mixed together in it, the more easily does digestion go on, and the less is the system affected by the operation. No principle in medicine is more clearly established than this; nor have dietetic writers failed, in any age, to proclaim and apply it, however little it has been heeded by men.

Attempt to disprove the rule.

A curious argument, however, has of late been brought

forward, by the lovers of variety in diet, to prove that it is as easy for the stomach to digest the most compound mixture of substances, as a single one. Chemists have shown that all vegetable substances consist essentially of carbon, oxygen, and hydrogen; and the same elements enter into the composition of all animal substances, with the addition only of nitrogen. Hence, then, all vegetable and animal food consists of these four simple substances, oxygen, hydrogen, carbon and nitrogen. Whether a man, therefore, takes one, or twenty kinds of food, these four, and only these, will be present; and why, then, will it be harder for the stomach to digest twenty varieties of food, than one variety?

If all the compound vegetable and animal substances, taken as diet, were decomposed into their elements before eating, this argument would be a sound one: for then, there would be uniformly but three or four substances on which the gastric juice would operate. But in order that this argument should hold in the present case, it must be shown, that all compound substances, made up of the same elements in different proportions, are dissolved and decomposed with equal ease; since solution, or decomposition, appears to be the result of the operation of the digestive powers. Now every chemist knows, that there is an immense difference in the ease with which solution and decomposition are effected; even in those cases where substances differ only in the proportion in which the same elements are combined. The more of variety, therefore, that is introduced into the stomach, the more burdened will be the powers of digestion. Hence this specious argument amounts to nothing.

What would you think of the man, who should invite you to partake of a collation of fruit and wine, and then present you only with charcoal and water, giving as a reason that these latter substances were composed of carbon, oxygen and hydrogen, and that the same elements, and no more, enter into the composition of fruit and wine; and, that therefore, the difference between them is merely imaginary. You would hardly thank him for his chemistry.

But this case does not require the aid of chemistry, to show the fallacy of the argument adduced. The experience of physicians, and indeed, of almost all other agrees in the statement, that one article of food, taken at a meal, digests more easily and much quicker, than a mixture of several. This, then, is a sufficient ground for establishing the rule of diet, which recommends, as best of all, to confine ourselves at each meal, to a single dish.

Second reason for the Rule.

A second, and even more important reason for this rule, is the strong temptation that is presented by variety in food, to exceed the bounds of temperance in quantity. This is, indeed, the original source of nine tenths of the gluttony in the world. The state of the case is just this. A man usually eats of the first sort of food presented to him at the table, until he begins to feel as if he had eaten enough, and, indeed, he has eaten enough; and then is the time for him to leave the table. But a second sort solicits his appetite, and such is the wonderful influence of the temptation over the stomach, as to produce a desire for the second kind of food, full as strong as for the first. The second sort is eaten, until a sense of satiety begins to be felt, which, however, does not usually happen till nearly enough of the second dish has been taken to suffice for a meal. The third variety attracts the appetite with nearly as great power, if cooked temptingly; and even a fourth, or a fifth, or more, will not be set before the *gourmand* in vain. And it happens in this case, that the more indigestibly these sorts are prepared, the more filled up with gravies, and sweets, the more powerful is their influence over the appetite. The truth is, the quantity of food that men eat, is nearly in a direct ratio to the number of sorts that are set before them: that is, two sorts will double the quantity; three sorts, treble it, and so on. Or, if towards the close of the repast, the pastry, and cake, and fruit, are not taken in so large quantity, their more indigestible nature makes up for the deficiency.

What is meant by a single dish.

But what do I mean, when I speak of one sort, or one dish? Is it meat alone, or bread alone, or butter, or salt, or pepper alone. By no means. I understand by the term, one of the more substantial articles, included in every meal, as bread, or meat, with the usual condiments and accompaniments; such as butter, salt, sugar, potatoes, &c: that is, such of these articles, as a person chooses to eat along with the bread, or the meat, his principal article. But if any of these, or other articles, such as pudding, cake, &c. are introduced, after the removal of the principal articles of the first dish, it constitutes what I call a second sort, or a second dish. Hence it appears, that what I understand by one dish, or sort, may include several varieties of food; for example—milk and bread—bread and butter—meat, bread, potatoes, and salt, &c. It is presenting another dish in a new form, after finishing one of these, that I have mentioned, which tempts the appetite and does the mischief. If a man would mix his five or ten sorts together at the table, just as they are mixed in the stomach, after eating, it is not probable that he would eat much more of the whole, than of any one of them taken separately. I should hardly object indeed, to having every compound considered as a single dish, which was mixed together before it was eaten: though certainly the less compound such a dish is, the less oppressive will it prove to the stomach. But a man will not eat as much of such a mixture, by any means, as he would, if the same articles were presented to him one after another; especially if a little modified by cookery.

Great intemperance in eating in the U. States.

If the preceding view of this subject be just, how immense is the intemperance in food, and the gluttony of our land! In other countries, you will undoubtedly find examples of greater excess of this kind among the higher classes of society: but probably in no other part of the world,

have the great mass of the people the means of furnishing their tables with so great a variety, as among us.* Even the poor are usually able to have their second and third dishes. So that probably there is no nation where excess in eating is so universal as among us: nor can we regard the opinion, already quoted, as an exaggeration; "that almost every man, woman, and child in this country, habitually eats and drinks twice as much every day on a moderate estimate, as is necessary." Who among us thinks of making out a meal from a single dish, unless under the care of a physician! What traveller would not consider that a most wretched public house, where his table was furnished with only one sort of food, however wholesome and well prepared! How soon would that boarding house be deserted, which should rigidly adhere to the rule I have laid down, as most conducive to health, even were its prices greatly reduced! Now were this excess indulged in only by the laboring classes of society, its effects, so far as health is concerned, would be comparatively harmless: But it exists, perhaps in an equal degree, among the sedentary classes of society—yes, even among literary men, and religious men. Let us select an example of this latter description, from those who are considered temperate and respectable. Let us sum up the ordinary fare of such a family for one day.

Daily fare of a respectable family.

Probably a majority of sedentary and literary men among us, make use of meat for breakfast; and generally of two kinds. Accompanying this, there must be bread and potatoes, salt, pepper, pickles, and sometimes eggs, &c.; in addition to these, there must be toast or warm cakes, or biscuit and butter, and cheese. At dinner, there are usually two sorts of meat; accompanied by bread, potatoes, gravies, pickles, and various other vegetables and condiments. Af-

* Note D.

ter this comes a pudding ; then bread, cheese, and butter, and pie ; and not unfrequently some kind of fruit closes the repast. At supper there must be bread, or biscuit, cheese, and butter, and generally preserves, with the addition of some kind of cake, or pie, and sometimes both.

Dietetic treatment of friends.

When the same family invite their friends to dine, or sup with them, there must be an addition to the dinner, of at least a third kind of meat, and one or two other pies, custards, &c. To the supper must be added dried beef, or beeve's tongue, pastry, preserves, custards, and two or three kinds of cake,—the loaf cake—the pound cake—the sponge cake, &c.—of all things the most unfit to put into a sedentary person's mouth. Not long after tea—which must also be so unreasonably strong as to produce wakefulness through the best part of the night—come other temptations in the form of fruits, nuts, jellies, trifles, &c. And we must recollect, also, that it is the general custom of the guests, on such occasions, to taste, at least, of nearly every variety of food and drink that is presented to them. Oh, when we remember that one of the simplest of these dishes alone would be the most conducive to health, what shall we think of cramming down such a heterogeneous, indigestible mass, into a stomach disposed by occupation to weakness ! Ask the individuals next day what they think of it. And yet, such are the common and approved entertainments that are met with every day, in our land, in intelligent and religious families—among the most worthy and most pious part of the community. I say nothing here of those extensive and ridiculous fashionable parties among the gay and worldly minded, where the chief object seems to be to exclude common sense and prudence, and to do all that is possible by food, drink, and folly, to ruin the health and the morals : but I speak of the manner in which many temperate men of public education—many professors of religion, many ministers of the gospel, live nearly every day—and

of the manner in which they are wont to entertain their friends, when they invite them to common social entertainments.*

A New England Thanksgiving.

But what shall I say of that *chef d'œuvre* of licensed gluttony, a New England Thanksgiving? I would not be thought to condemn an institution, so hallowed by religious, patriotic, and domestic associations; and really so happy in its influence upon the community. But I condemn its monstrous abuses in stuffing and gormandizing, and even sanctioning gluttony by religious acts. Even the poorest in society, feel themselves perfectly justified in devoting a large part of their earnings to the preparation of numerous varieties of rich and stimulating dishes, for one or two meals. And as to the middling and richer classes, there is no calculating the expense and profusion of a thanksgiving dinner; whose almost only effect is, to unfit them entirely for the religious duties of such an occasion. Just compare this enormous waste, with the scanty and comparatively contemptible contributions to benevolent objects, which are made on these occasions; and inquire, whether such a perversion of heaven's gifts, must not be highly criminal in the sight of God. If this were a necessary evil connected with thanksgiving, I would submit to it in silence, rather than lose the benefits of so valuable an observance: But it is only a gangerous excrescence, that demands the application of the knife, which religion and temperance are at this day using so effectually.

How far the blame is to be imputed to females.

I am aware, indeed, that very much of the sin of this extravagance and gluttony, on all the occasions above pointed out, must rest upon the ladies, who are at the heads of families, and who have it in their power, in a great measure,

* See Note H.

to regulate the bill of fare at their own tables. And were this the proper place, I would most seriously remonstrate with this class of the community, who are ever ready to follow in the path of duty, when it is clearly seen by them. It is not merely irreligious and worldly minded females, who take the course I have described; but many of the most pious, many who feel it to be a duty to make sacrifices to promote objects of benevolence, and who carry round the subscription paper to collect the widow's and the orphan's mite, for sending the Gospel to the ends of the earth. Such especially, I would ask, how they can reconcile this worse than unnecessary expense in living, with their professed principles of benevolence; with their duty to the poor, the distressed, the heathen of our own and of other lands! You cannot deny that the expense of living, so far as food is concerned, increases almost in direct proportion to the number of dishes you introduce. You cannot deny that the expense of an occasional entertainment of your friends, in your way, does involve no small amount of cost. Your pies and cakes, your sweet meats, and various condiments, are all made up of the most costly materials: And are they not also, for the most part, excessively indigestible? Do you really believe that they are as well adapted to promote the health of your families and friends, as a more simple fare? Which person do you suppose would rise next morning most vigorous and refreshed, and best fitted for intellectual labor; he who had made his supper from a cup of weak tea or coffee, and a little dry toast and butter, or he who followed your recommendation, and drank your concentrated extract of tea or coffee, and ate the whole round of your hot biscuit, and pastry, and cakes, and sweet meats, and fruits? Oh, how can a lady, who has a knowledge of this subject, even after she has prepared such a farrago of indigestibles, urge them, as an act of kindness, upon her guests, if they are literary persons? To them such trash is rank poison—poison to the body and poison to the soul; and they ought to touch not, taste not, handle not. No sto-

mach can endure them without injury, except it be that of the sailor, the soldier, the drayman, and the hard working farmer. From other circles, especially from among literary men, and all ladies, and those in easy circumstances, these things ought to be banished as real and dangerous enemies. Instead, therefore, of saying to a literary friend, as if it were an act of kindness, do let me help you to a piece of this pie, or this cake, or these sweet meats, or these fruits; it would be a fair statement for a lady to say, "this tea, Sir, will probably give a sleepless night, and a headache to-morrow. This biscuit is just baked, so as to be exactly adapted to lie heavy on your stomach, and give disturbed and unrefreshing sleep. This cheese, if you will take a little of it, along with the biscuit, will load your imagination with unpleasant dreams. Add a few of these sweetmeats, and you may be sure of the nightmare. This kind of cake, with a little wine, is well adapted to bring on a fit of the gout; this kind, to make it sure that a person will be a fashionable and confirmed dyspeptic; and this kind to prepare the constitution for a fever. These walnuts, Rev. Sir, will be sure to give you a dull audience next Sabbath. These almonds, Sir, will make your client lose his cause in court to-morrow. These raisins, Sir, will be sure to sink below its competitors, the prize essay, you are preparing. And the digestion of this pine apple, Sir, will prevent your digesting the mathematical problem that labors in your mind."

This is no caricature. These very results have followed such causes hundreds and hundreds of times. How can a woman of principle, of religious principle, therefore, be willing to present so many fatal temptations before those whom she respects and loves. Does she expect they will resist the temptation? Alas, she expects more from human nature than it has ever yet exhibited. There is certainly no sure way of preventing men from becoming gluttons, but by keeping the temptations out of sight. Do females plead that tyrant custom and fashion will not permit them to do

otherwise than they do? and that if they reduce their bills of fare, they shall only be called niggardly, and no one will second their efforts? But have they ever fairly made the experiment? How do they know but there are many, who are not wholly given to appetite, and who will rally around them? How long is it since these same tyrants, Custom and Fashion, imperiously demanded the circulation of wine, as an essential part of an entertainment? But now their decree seems likely soon to go forth for its total exclusion.

How far gentlemen are to blame.

But ladies plead that their husbands, and their guests are gratified with this variety and richness of food and drink; and that, therefore, they are under a sort of necessity of complying with their tastes. And with the gentlemen, I am inclined to believe, the great burden of the sin does rest: though I am aware, that the fear of being thought out of fashion, and the desire of being at least equal to others, in the variety and richness of an entertainment, are nearly omnipotent in many a female bosom. But if their husbands, if the majority of influential gentlemen, were to raise their voices against these extravagant and ruinous habits, I have no fears but intelligent and pious females would bring the food and drink of their tables within the bounds of temperance. But the truth is, the great mass of men, even of literary and professional men, are pleased with the variety of dishes and dainties that they meet in a modern visiting party. Now for men of intellectual habits, I maintain, that this is scandalous. It is an entire perversion of the proper object of social entertainments, which is, to improve intellectually, morally, and religiously: for by thus gormandizing and stuffing himself, with twenty indigestibles, a man is much better prepared for the glutton's couch, than to give or receive intellectual, moral, or religious improvement. It is high time, therefore, for every student, to prepare himself to set his face against the monstrous extravagancies

and perversions that exist on this subject. If men of no mental culture will continue to make social and friendly meetings an occasion for gluttony, let them do it. But no student should venture near such meetings, unless he can successfully resist every temptation to excess. How contemptible is that man, who suffers a cultivated intellect, in this way, to be manacled and brutalized! And a man may accomplish the degradation without resorting to entertainments, simply by permitting himself to indulge his appetite daily, in a great variety of food and drink. Hence the lawyer returns from the county court, and the legislator from the capitol of the state or the nation, where they have yielded too much to the temptations of high living, hence they return, stupified and incapable of mental effort. Hence too, the clergyman often gets the name of a great eater, because he is so often tempted, by the variety and richness of food, which his kind hearted parishioners set before him, to indulge to excess: and hence, too, he is so incapable of attending to composition, after returning from the presbytery, association, or religious anniversary. For on these public occasions, it seems to be the general impression, that in proportion as a man excels in intellect, or holiness, so he ought to excel in the capacity and power of his stomach. At least, this is the most charitable explanation you can give, of the extravagant dinners, which religious men prepare on such occasions, for ministers of the gospel.

Appeal to the members of Temperance Societies.

On this subject I cannot avoid appealing with earnestness, to those men, especially, who act on the principle of entire abstinence from ardent spirit. I maintain that the same reasons, which led them to adopt this course, apply with no less power, in favor of taking for their guide, the rule which excludes a variety of dishes from the same meal. Do they abstain from the use of ardent spirit, because its use, even in the smallest quantity, exposes them to intemperance in drinking? So does the second and third dish expose

them as certainly to intemperance in eating. Do they abstain because spirit would do them no good? Nor does the second and third dish; but injury, in almost every case. Is ardent spirit destructive to property, health, and life? I hesitate not to say, that the intemperate eating in our land is scarcely less injurious in these respects. Suppose, that upon an average, the people of this country, of all classes, consume twice as much food as is necessary; and suppose that the average annual support of each individual, of our twelve millions, is twenty dollars, and that by reducing the quantity of their food one half, they should save one third of the expense. This would produce an annual saving of eighty millions of dollars. But in the words of an able medical writer, whom I have already quoted, "it is the opinion of the majority of the most distinguished physicians, that intemperance in diet destroys the bulk of mankind; in other words, that which is eaten and drank, and thus taken into the habit, is the original cause of by far the greater number of diseases which afflict the human race." Suppose three quarters of the diseases and deaths occurring under seventy years of age, are imputable to this cause. In this country, it is reasonable to impute one sixth of the deaths, (40,000 annually,) to intemperate drinking. Deduct also one tenth for those individuals who live to the age of seventy; this being the medium length of human life, according to the Bible, when not shortened by accident, exposure, or intemperance; so that all who attain to that period, may be regarded as uninjured by excess. This calculation will leave us one half of the diseases and deaths that occur, under the age of seventy, to be laid to the charge of intemperance in eating. Now the bills of mortality, in the healthy part of the civilized world, show, that one half of mankind die under twenty years of age; two thirds of them are gone at forty five; and three quarters of them at fifty, or a little beyond. It is a moderate estimate, therefore, to say that one half of the people in this country, lose from twenty to thirty years of life, in consequence of

intemperance in eating: that is, they fall short of seventy years by that amount. This premature departure of so many citizens, is an immense pecuniary loss, to say nothing of the expense they incur by sickness, and the comparative feebleness and inefficiency of their efforts while they live. For it is the saying of a wise and observing man, confirmed by experience, as a general truth, that "he who eats but of one dish, never needs a physician."

Gluttony as injurious as drunkenness

Excess in eating produces similar, though to the eye of common observation, not equally striking effects, upon the intellectual, moral and religious character, as excess in drinking. It is a very rare case, that an habitually great eater, possesses much acuteness of intellect. Gormandizers, who never stop eating, till they have tried all the dishes before them, who eat, according to the proverb, "ab ovo usque ad mala," usually discover great obtuseness of perception and clumsiness in their mental operations. They never make any great and striking literary, or scientific efforts: nor rise to much eminence in society. And even those, who in early life, have been abstemious, and have made great attainments in learning, if they begin to indulge their appetites to excess, soon destroy the energy of their minds, impair their memories, and are early taken away by some acute disease. Nor can a man make himself a beast in intellect, without exhibiting bestiality in his moral conduct, —without losing sensibility of conscience and benevolence of heart. How much there is to choose, in a moral point of view, between the swinish insensibility of the glutton, and the frantic ravings of the drunkard, I will not undertake to say: but as evils affecting property, health, life and intellect, can any reasonable man doubt, that the excessive eating of our land, is at least as great as the excessive drinking: I mean in the aggregate; for when we come to individual cases, there can be no doubt that drunkenness is by far the most prolific in waste and misery.

Now if I have shown this, or any thing like it, how can the honest disciple of total abstinence from ardent spirit avoid the conclusion, that he is bound to apply his principles to intemperance in food, and to do, what can be done, to check the evil and the sin? The only course, by which he can hope to accomplish much, is to adopt, and adhere rigidly to the rule under consideration; viz. to make out his meal uniformly from a single dish—and to endeavour to persuade others to do the same. If this rule be not adopted, you might as easily confine water in a mill dam, after opening the sluices, as to prevent excessive eating. But if it were to become fashionable, it would be nearly as effectual, in respect to food, as total abstinence is, in respect to strong drink.

Inconsistency of many who abstain from ardent spirit.

I know that the calculations, which I have made on the subject, will be regarded as of a Bobadil character, by many. But if they are so, alike Bobadil, are the calculations that have been so repeatedly made, in respect to intemperate drinking. I maintain that the basis of the calculations is as good in one case as the other: and I can only say, let their hollowness and falsity be shown, if they can be, in some other way than by ridicule. I would not be thought to underrate the evils of drunkenness; nor to be indifferent to the efforts that have been made for its extinction. In the proper place, I think I shall convince you, that I am no friend to ardent spirit, as an article of luxury or diet. But I plead that the same general principles, which have been applied so successfully to excess in drinking, should be brought to bear upon excess in eating. I maintain that we need sermons, and addresses, and agents, for the suppression of the latter, as well as the former. I maintain, that a man cannot consistently put forth his zeal in vindication of total abstinence from the one, without a correspondent zeal for temperance in the other. Yet how many zealous and able advocates for putting away ardent spirit, are to be found,

who, if tried themselves by the rules of temperate eating, would be found transgressors of no common stamp! Nay, some well meaning friends of abstinence from spirit, have recommended the substitution of food for drink, when the stated seasons for indulgence had arrived; thus, converting men from drunkenness to gluttony, instead of subduing their inordinate appetites, by withholding all substitutes. Others, who abstain from alcohol, are as much disappointed and as fretful, if the usual variety and richness of food are not upon their tables, as is the drunkard, if deprived of his dram at the accustomed hour. And probably one of the effects of abstinence from spirit, wherethe habit of drinking had acquired considerable strength, has been to make men inordinate eaters—that is, in avoiding Scylla, they have rushed into Charybdis: and they have done it too, under the impression that in Charybdis there was no danger. But I am confident that most of the men, who have abandoned the use of spirit, have so much piety and strength of character, that when they once see their inconsistency, in not applying the like principles to every part of their diet, they will suffer no cravings of disordered appetite to prevent their practice of temperance in all its branches. Conscience will torment them, just as it does the pious advocate for moderate drinking, until they can no longer endure its reproof.

Further proofs of dietetic excesses in the land.

Some may think that I have not sufficiently shown the existence of a very great excess among us, in respect to food. Let me therefore, allude to one or two other indices of the public taste in this respect. The keepers of public houses will certainly be apt to find out what that taste is, and to adapt their bills of fare to it. Certainly, they will be under no temptation to be more profuse or various in the meals which they provide for travellers, than

the general appetite requires ; since variety and profusion only diminish their profits. But who that has travelled much, does not know, that even the humblest country tavern, loads its table with enough varieties of food to satisfy a practised glutton, though not perhaps so delicately cooked, as he might wish : and who has not seen the ill humor and indignation of gentlemen, even literary gentlemen, if any of these six or eight sorts—meats, butter, cheese, bread, potatoes, sauces, gravies, pickles,—the castor of spices, catchup, cayenne and oil--pie, cake, crackers, &c. were wanting ? Who has not seen the voracity with which one dish after another was dispatched, as if the traveller thought no evil could result from eating, when upon a journey. Nay, so universal is this demand for variety and richness of food, that if a temperate man call only for one dish—for a breakfast of bread and milk, or milk porridge, or dry toast ; or for a dinner of nothing but a slice of steak, and a piece of bread ; or for a supper, of a cup of tea, and a slice of bread only ; the landlord supposes he does it, not because he prefers this fare, but in the hope of lessening his bill. And here let me remark, that it is, indeed, unreasonable, that the price of meals at our public houses should be regulated by the amount that is required to satisfy a glutton ; and that a temperate man must pay for this amount, though he call for only the quarter part of it. In some of our cities, indeed, provision is made, as in all the large places in Europe, for getting only those articles which you want, and at prices corresponding to their value. But in the country, the man whose comfort and conscience forbid him to gormandize, must pay the same bill, whether his meal consists of one, or a dozen sorts of food : and he has only the poor consolation of reflecting, that it would have cost him nothing but his health and conscience to have partaken of twelve. When will the time come, that abstemious travellers enough shall be found upon our public routs, to make a demand for a table spread in the genuine temperance style !

Boarding Houses.

Boarding houses are another good index of the public appetite for food. And what, in common language, constitutes the essence of the best boarding house? Simply the greatest variety and richness of food, cooked in the best manner: though surely, if things were called by their right names, that would be regarded as the worst refectory, where a man was most likely to ruin his health. And the fault that men find with boarding houses, in nine cases out of ten, is founded upon what they consider a deficiency in the variety or richness of the food. You rarely hear a man complaining that the food offered him is too rich, or too various. Even in those cases where the remark is made, that there is greater richness and variety than is necessary, it is generally obvious that the man likes it well enough himself, although he may fear for others. The keepers of boarding houses, are, therefore, compelled to supply the fare that a gluttonous appetite demands, or lose their custom. And it is in such boarding houses, that literary young men particularly, acquire habits of intemperate eating. They do not know their danger, until so strong an attachment has been acquired for high living, that their eyes are blinded, and they will not see it; and then they are confirmed in intemperance, probably for life.

Experiments in Amherst College.

It gives me great pleasure to allude in this place to an experiment, which I understand has been made, by several of the members of this Institution, to regulate their board, essentially according to the principle, which I am advocating, in respect to variety in food: that is, to have only one substantial dish at a meal. Such individuals have taken one most important and fundamental step towards obtaining and preserving vigorous health, long life and happiness; and thus furnishing themselves with ten times greater means of usefulness, than he possesses, who eats every dish that is set before him, and thus brings on premature debility of

body, and imbecility of mind. If they are equally resolute in adopting and adhering to the other established rules for the health of literary men, and in the cultivation of knowledge, I fear not to predict, that in future years, they will far outstrip in usefulness and respectability, every companion who lingers over his second, and third, and fourth dish, and that they will bear away the prize, while the latter are toiling and panting in the middle of the race. Could such a custom, as I have here alluded to, become universal in this College, it would do more for its prosperity and usefulness than wealth could give. Nay, it would be a substitute, in a degree, for wealth: for it would certainly reduce the price of board one third: and this would be a most important help to those meritorious young men, who are not daunted by poverty, from pressing forward in a course of public education.*

Dyspeptics particularly concerned in this subject.

If the arguments, which I have adduced in favour of confining the diet to a single dish at a meal, are of sufficient weight to render it desirable and important, even for those in good health to adopt the rule, surely they will apply with ten fold power, to those who are even in a slight degree, affected by dyspepsy. So insidious is this class of complaints, that very many students, in the early part of their literary course, suffer their constitutions to be deeply affected by them, ere they have any suspicion of the real enemy that is within the citadel. They are occasionally subject, indeed, to a depression of spirits, to which they were formerly strangers; and now and then headach, heartburn, or foul stomach, oppress them, along with listlessness and drowsiness. But in general, their appetite is unusually good; nay, it is not easy to satisfy their hunger. Hence they conclude, that their occasional bad feelings cannot be any thing serious, and a resort to an emetic or cathartic re-

* See Note I.

lieves them. Now such individuals are the men, above all others, who ought to adhere most rigidly to the rule under consideration, in connection with that considered in the last lecture, as to quantity. They are dyspeptics, most decidedly so: their ravenous appetites, accompanied by emaciation, rather than corpulency, is abundant proof of this; and the adoption of these two rules, with vigorous exercise, would be an almost certain cure, while yet they are only in the first stages of the malady. And, indeed, it is most painful to see such persons, evidently ignorant of their situation, load and overload their stomachs, with pudding upon meat, and bread and butter, or pies and cakes, upon both; and then cram down fruit upon the whole. But of all men to convince that they eat too much, dyspeptics are the most difficult. "Of all mankind," says Dr Trotter, "they are the most liable to surfeits." And this on two accounts: first, they generally have a ravenous, inordinate appetite, which is almost irresistible: secondly, their powers of digestion cannot make way with as much food as those of a man in vigorous health, because they are weakened. If any present belong to this class, and I fear there are many, I earnestly entreat them to deliberate well upon the considerations, which, in the faithfulness and plainness of friendship, I have suggested. If you were not persuaded by the last lecture to apply the balances to your food, you have no idea probably, of the enormous quantity which you daily consume. Are you willing to learn the amount? Then I have one other plan to suggest, without using the balances. For one day, place in a dish set by your side, just as much of each article as you eat and drink, and at night look at the incongruous mixture, and if it does not startle you, I shall think it strange. After this, go on, if your consciences will let you,—you, who have devoted your lives to learning,—you, who are willing to make any sacrifice to attain clearness and vigor of thought,—you, who have perhaps devoted your days to the service of mankind, and your God and Redeem-

er,—go on, I say, to fill up the reservoir daily, with the same disgusting mass, until your system sinks under the load, alongwith your hopes of distinction and usefulness.*

Examples of temperance in diet.

But if there be any desponding invalid, whose resolution is half formed to engage at once in this self denying effort of temperance, perhaps it may cheer him forward, to listen to a few more decided testimonies to the efficacy of this system in bringing back the sinking constitution to health and vigor. The first is from Dr. James Johnson, who, as one of the ablest London physicians, is now reaping its precious fruits.

Case of Dr. James Johnson.

“By adherence to the foregoing plan,” says he, “varying the quantity (of food) according to the feelings subsequently experienced, the surest foundation is laid, not only for health, but for happiness. Under a regimen of this kind, the body will be brought to the greatest degree of muscular strength, of which the individual constitution is susceptible; and the intellectual powers will be raised in proportion. Equanimity of mind will be attained, if attainable at all; and where moral causes of irritation or affliction cannot be avoided, they will be greatly neutralized. Under such a system of diet, the corporeal frame will be rendered capable of undergoing fatigue; and the mind more able to resist misfortune, than by the richest dishes, and most luxurious wines.”

“The rigid system which I have proposed, is not the creature of speculation engendered in the closet. It is that which many, to my knowledge, have adopted with the most perfect success; it is that by which I have conquered the most intense degree of dyspepsy in my own person. Those who have courage and perseverance to reap the fruits of

* See Note K.

such a system, will hardly be induced to change it, however strongly they may be tempted by the luxuries of the table, and the seductions of convivial society. It would be well for those in the enjoyment of present health, if they employed it as a preservative of that invaluable blessing ! But this I do not expect. I am addressing those who have tasted the bitter cup of sickness ; and especially those who have experienced the horrors of dyspepsy. The latter alone can appreciate the luxury of immunity from the terrible feelings of mind and body, engendered by that worst of human afflictions.”*

An American scholar.

One of the most distinguished scholars now living in this country, who declares that he has “ been an invalid, and one standing pretty high on this list, for some thirty years,” testifies, that he “ should have been in his grave before he was 45 years of age, had he pursued the tonic system.”—His diet consists of a “ gill of coffee in the morning, and half that quantity of tea at night :”—“ Simple nutritive food in moderate quantities ; nature’s beverage ; milk and farinaceous diet ; meat with great moderation, and never more than once a day ; avoiding the whole tribe of deserts, pies, cakes, sweetmeats, and all the various articles of mere luxury, which the love of gratifying appetite has invented.” “ Since I have practised in this way,” says he, (though his constitution was too completely undermined in early life, ever to be restored to an entire state,) “ I have more than doubled my ability to labor in my vocation, and more than half diminished my sufferings.”†

Howard, the philanthropist.

The next case is that of Howard, the distinguished phi-

* Morbid Sensibility of the Stomach, &c. p. 115.

† Journal of Humanity, Dec. 2, 1830.

lanthropist, whose name is familiar to all. His story shall be given in his own words.

“A more ‘puny whipster’ than myself, in the days of my youth, was never seen. I could not walk out in the evening without being wrapped up: I could not put on my linen without its being aired; I was, politely speaking, enfeebled enough to have *delicate nerves*; and was occasionally troubled with a very genteel hectic. To be serious, I am convinced, that whatever enfeebles the body debilitates the mind, and renders both unfit for those exertions which are of such use to us all as social beings. I therefore entered upon a reform of my constitution, and have succeeded in such a degree, that I have neither had a cough, cold, the vapors, nor any alarming disorder, since I surmounted the seasoning. Prior to this, I used to be a miserable dependant on wind and weather: a little too much of one, or a slight inclemency of the other, would postpone, and frequently prevent, not only my amusements, but my duties; or, if pressed by my affections, or by the necessity of affairs, I did venture forth in despite of the elements, the consequences were equally absurd and incommodious, not seldom afflictive. I muffled up even to my nostrils; a crack in the glass of my chaise was sufficient to distress me; a sudden slope of the wheels to the right or left, set me a trembling; a jolt seemed like a dislocation, and a sight of a bank or a precipice, near which my horse was to pass, would disorder me so much, that I would order the driver to stop, that I might get out and walk by the difficult places. Mulled wines, spiritous cordials, and large fires, were to comfort me, and to keep out the cold, as it is called, at every stage, and if I felt the least dampness in my feet, or other parts of my body, dry stockings, linen, &c. were instantly put on: the perils of the day were to be baffled by something taken hot on going to bed, and before I pursued my journey, the next morning, a dram was to be swallowed, in order to fortify my stomach. In a word, I lived, moved, and had my

being so much by rule, that the slightest deviation was a disease.

“ Every man must, in these cases, be his own physician. He must prescribe for and practise on himself. I did this by a very simple, but as you will think, a very severe regimen, namely, by denying myself almost every thing in which I had long indulged. But as it is always harder to get rid of a bad habit, than to contract it, I entered on my reform gradually ; that is to say, I began to diminish my usual indulgences by degrees. I found that a heavy meal or a hearty one, as it is termed, and a cheerful glass, that is, one more than does you good, made me incapable, or at least disinclined to any useful exertions for some time after dinner hours ; and if the dilutive powers of tea assisted the work of digestion, so far as to restore my faculties, a luxurious supper came in so close upon it, that I was fit for nothing but dissipation, till I went to a luxurious bed, where I finished the enervating practices, by sleeping eight, ten, and sometimes a dozen hours on the stretch. You will not wonder that I rose the next morning with the solids relaxed, the juices thickened, and the constitution weakened.

“ To remedy all this, I ate a little less at every meal, and reduced my drink in proportion. It is really wonderful to consider, how imperceptibly a single morsel of animal food and a tea-spoonful of liquor deducted from the usual quantity daily, will restore the mental functions, without any injury to the corporeal—nay, with increase of vigor to both. I brought myself, in the first instance, from dining on many dishes to dining on a few, and then to being satisfied with one : in like manner, instead of drinking a variety of wines, I made my election of a single sort, and adhered to it alone.

“ My next business was to eat and drink sparingly of that adopted dish and bottle. My ease, vivacity, health, and spirits augmented. My clothing, &c. underwent a similar reform ; the effects of all which is, and has been for many years, that I am neither affected by seeing my carriage dragged up a mountain or driven down a valley. If an acci-

dent happens, I am prepared for it, so far as respects unnecessary terrors ; and I am proof against all changes in the atmosphere, wet clothes, damp feet, night air, transitions from heat to cold, and the long train of hypochondria affections.”

“ In his 63d year, Mr. Howard was in full possession of his mental and physical powers. He, however, accidentally contracted a malignant fever whilst visiting the sick in an infected district, which terminated his life in a few days.*

Variety in diet allowable.

In my remarks upon the use of a variety of dishes at the same meal, I would not be understood as condemning a variety in the diet. I care not, if a man find a new dish for every meal through the year, provided he use them all in moderation, and they be not of such a nature, or so compound, as to be, by common consent, indigestible. Yet, as there is not a great variety of simple food that is easily digested, it is a better course to select a few articles, for the principal part of the diet, and continue usually and regularly to use them, so long as they are relished ; because new varieties, even when only one kind is employed, are apt to prove a strong temptation to excess. But let no one continue to eat any particular article after his relish for it is gone : since even less digestible food will be better than that most so, without such a relish : for the relish quickens the power of the stomach.

Dangers from the second and third dishes.

Nor would I be understood as asserting, that more than one kind of food cannot, in any case, be taken at a meal, without a transgression of the rules of temperance. If due attention be paid to the quantity, according to the rules which I have already illustrated, excess need not be the result. But whenever a man once begins upon the second

* Journal of Health, Vol. I. p. 59.

and the third dish, he is constantly exposed to eat too much. He is exactly in the condition of the moderate drinker of ardent spirit—not indeed actually intemperate, but drawn towards the vortex, by an almost irresistible power. In either case, the only safety lies in living within the rules which temperance prescribes. For it is much easier to be abstinent than abstemious. And for the individual especially, who is endeavouring to put in practice the rules of temperance in diet, for him to continue to take a little of the second dish, and a little of the third, &c. a little of the pudding, or pie, after the meat; a little of the pastry, or cake, or sweetmeats, after the toast, &c. this will prevent his ever effectually overcoming his old hankerings after an enormous quantity. Appetite will be perpetually tormenting him, with its demands, and he will be almost constantly trespassing and repenting; resolving and reresolving; and it is a wonder if he do not die the same. Whereas, by a resolute restriction to one dish, he would soon forget the second and the third, and temperance would become so habitual as to be natural.

The community not yet prepared for this system of diet.

But I fear that I am labouring almost in vain, both with the invalid and the healthy, in urging a rigid adherence to the rules, as to quantity and variety in food, which have been explained. It is not because the positions I have taken, are wanting in argument, or medical authority, to support them, that they will not be admitted. For they are established as fundamental principles in dietetics: and physicians and philosophers, have been urging them for thousands of years. But still, to the great mass of men they sound new and strange, and probably absurd and extravagant. I come forward, therefore, in defence of them, in the face of public opinion. It is yet too early, I fear, for such opinions to be received; I had almost said, by half a

century.* “This system is too rigid, too ascetic for me,” will be the general exclamation. “It is not necessary to be so particular and abstemious. I have been in the habit of eating such things as were set before me, and as much of them as my appetite seemed to crave, and I am not aware of having received any injury. My health is as good as that of most others : and I have no idea of ruining it by the adoption of any new fangled rules of eating and drinking, until I find the need of it.”

By some such answer as this, will most persons evade the force of all my arguments, or else they will call in the aid of ridicule to complete the triumph, and justify their own gluttony. Even the invalid, will not feel the need of these rules, until he is very far gone ; and then he will be ready to go to London and Paris, to consult those physicians of distinction, whose advice, gratuitously sent to him, before it is too late, he rejects because it is too rigid and ascetic. “Nothing is more common” says the Journal of Health, “than to see a miserable object with a constitution broken down by his own imprudence, and a prey to disease, bathing walking, riding, and in a word, doing every thing to solicit a return of health—yet, had his friends recommended these very things by way of preventing, the advice would in all probability, have been treated with contempt, or at least with neglect. Such is the weakness and folly of mankind, and such the want of foresight, even in those who ought to be wiser than others.”

Power of the human constitution to resist excesses.

The man in health feels no need of dietetic rules, because his constitution has hitherto been able to resist all the effects of excessive eating : and he infers that it has suffered no injury. But such men ought to know, that God has given to the human system the power of withstanding, even for years, inordinate indulgencies, when they are not

* See Note A.

very excessive. Still, they gradually undermine the constitution, and, if continued, will sooner or later break it entirely down. Some students, who eat immoderately, will hold out in tolerable health till they get through College : others do not fail till their professional education is nearly completed ; and some endure for years longer, and then sink. Present health, therefore, furnishes no reason for neglecting those precautionary measures which I have urged : and the later in life a man's health fails him, in consequence of disregarding them, the more guilty is he ; because with so much stamina of constitution, he might more easily have saved himself.

Better to die early than submit to these rules.

But some will say, that rather than submit to such unmerciful rigor of diet, and thus forego all the pleasures of good living, they had rather risque the danger of poor health and premature death. Such persons, however, certainly know little of the wretchedness of constant feeble health ; nor can they have thought much of the solemnities of dissolution. " But I," says old Dr. Cheyne, " who give little credit to such bounces, know self preservation to be the great law in nature, never met one but the true practical and habitual Christian among my many patients, and even scarce these, who was truly willing and pleased to strip and lie down ; and only him who was always resigned to the order of providence either in life or death : and not even him at all times and in the dark moments of trial ; or any but the extremely miserable in life. But here the case is not mere dying but living a dying life, perhaps for many years.—In short, not to take up with a low regimen here, is a plain rebellion against the orders and designs of providence, manifested by nature, the relations of things, philosophy and experience, for the mere gratification of vicious morbid appetites : In a word, it is deliberate suicide, the greatest of all rebellion and sin."

True reasons why men will not adopt this system.

This may seem a severe judgment : but it is nevertheless true, that the grand cause why men are so averse to dietetic rules, is, that they prefer a little present indulgence to a future good. It is precisely the same reason that makes one man persist in using a variety of dishes, at the same meal, and another unwilling to abandon his bottle. Both of them suppose some thing else to be the ground of their unwillingness : But he who has himself gone through the process of breaking off from these intemperate habits, knows well that the solicitations of an inordinate appetite are the secret source of all the repugnance to abstemiousness. Experience, reason, physicians, conscience, all tell a man that he only, who is strictly temperate, is truly happy : but how can he forego the exquisite pleasures of the palate, for future philosophical composure and peace.

Encouraging circumstances.

When I think of the omnipotence of bad habits, and the long and deep slumber of the public mind and conscience on the subject of eating, I confess I feel as if I were merely beating the air. But when I think of the powerful movement of the day, in regard to drinking, I take courage ; and begin to hope that the sun of temperance will dissipate all the fogs that cover his face, sooner than I had hoped. This temperance movement is certainly preparing the public mind to look seriously at the subject I am urging in these lectures : and already there are pleasing indications that some of the totally abstinent in respect to ardent spirit, are beginning to feel the necessity of extending their principles to solid as well as liquid food. The establishment, as well as character of the Journal of health ; a work rich in learning and experience ; free from empiricism ; attractive in its style and arrangement, and so decided and thorough in respect to dietetics ;—should be hailed as auspicious harbingers of light and reformation. Nor does the weekly

herald of the American Temperance Society belie its name, by passing over this subject in silence. I should rejoice to see a fire opening forthwith, from every temperance battery in the land. But let me say to any, who unsheath the sword in this cause, that the battle will be more fierce and obstinate than that which is now raging with ardent spirit; because the enemy will then feel, that he is attacked almost in his last entrenchments; and that if driven from these, temperance, health, and happiness; peace, morality and religion, will reign once more in those dominions which he has usurped. "What!" the gormandizing world will say, "is it not enough to have wrested from us, by the force of public opinion, our right to use ardent spirit: will you also attempt to starve us; or at least, to shut us up in prison and confine us to bread and water, weighed in your own light balances? Leviathan, you will find is not thus easily tamed, *De aris et focis certandum.*"

Abstinence.

To those literary men who are determined in spite of arguments and physicians, to live as they have lived, in the indulgence of their appetites, there is one direction, which may serve to obviate the effects of their excesses. It is the observance of occasional seasons of abstinence from food. This is the sovereign remedy the brutes employ for nearly all their diseases; and, indeed, in chronic complaints, it has a wonderful power over the human constitution. John Home, the author of Douglas, and otherwise distinguished in literature, bore without inconvenience the luxuries of London, by eating on the Sabbath nothing more than a single poached egg.* This course was not only wise, but Sunday was the best day of the seven for observing such a fast.

Examples of abstinence:—Howard, Franklin, Socrates, &c.

A French writer, in a work entitled "An Apology for

* Sure Methods, &c. p. 38.

Fasting," has made a comparison between the longevity of 152 bishops or clergymen, who not only led strictly temperate lives, but frequently fasted, and the same number of men devoted to literature and science, who were also temperate but not abstinent; and he finds that the lives of the bishops were seven years longer, upon an average, than those of the Academicians; which he imputes to the effects of fasting.

Howard, the philanthropist, fasted one day in the week; as did also Franklin, for a time: And Bonaparte, when he felt his system unstrung, gave up his usual repasts, and took exercise on horseback.*

The ablest physicians declare that abstinence is one of the most effectual means of preventing violent and inflammatory disorders, such as fevers and sore throats. Socrates lived in Athens during the whole of the celebrated plague, that made such desolation in that city in his time; yet he escaped unhurt: and this is unanimously ascribed, by the writers of those times, to his uninterrupted temperance.†

I do not mean by abstinence in this case, that which is excessive: not such as monkish austerity has so often practised, and which has been the source of so much religious superstition, self-righteousness, and cruelty. Seasons of entire abstinence, unless directed by a physician, are rarely extended with advantage, beyond a day or two. But the danger on this side is so small, that a caution seems at this day scarcely necessary.

Case of Pomponius Atticus.

An amusing and instructive example of the good effects of abstinence, occurs in the case of Pomponius Atticus, the friend of Cicero. The melancholy accompanying a disordered stomach, brought him to the resolution of destroying himself; and he called together his friends, to consult as to

* Journal of Health, Vol. I. p. 13.

† Spectator, No. 165, also Rees' Cyc. Art. Abstinence.

the best means of accomplishing his design. His son-in-law, Agrippa, with great sagacity, advised and persuaded him to starve himself; recommending, however, that he should occasionally swallow a little water, to alleviate the pains of abstinence. To this he consented, supposing, as people generally do at this day, that water affords no nourishment, although, in fact it is almost the only fluid that does nourish. In this case it sustained Atticus, day after day, beyond the time he had calculated upon dying by starvation: and not only so, but this water and the abstinence, removed the complaints of his stomach, and his dejection of spirits; and he was then easily persuaded by his son, that it was his duty to live. He did live to an advanced age.*

Importance of physicians.

There is one subject connected with abstinence, which I shall take occasion here to notice, although it may seem to require rather the prescription of a professed physician. And I wish to be distinctly understood, as disclaiming all pretensions to a knowledge of the practice of medicine, technically so called.—My object is not to prescribe as a physician, and thus invade his province; but to point out that diet and regimen which will keep men out of the physician's hands; and which every intelligent man ought therefore to understand. Yet let me here also remark, that I am by no means disposed to declaim against regular scientific physicians, as useless. On the other hand, I thank God that so many of this character are found at this day, to bless society. And when a man is attacked by acute disease, he cannot apply to one of these too soon. Life is often sacrificed by a few hours delay. And when any man is in such a state of health, as to render it advisable for him to be under the physician's care, let him adhere rigidly to the prescriptions of the physician: for in sickness, it is sometimes necessary to direct to a course, which is entirely opposite

* See Note L.

to those rules of diet and regimen, that are so salutary in health and in mere functional disorders.

Common cold or catarrh.

But to return: the subject to which I alluded, is that of a common cold, or catarrh. And concerning its cure, there is a most false and pernicious saying: viz. "glut a cold, and starve a fever." But what is a cold, if not an incipient fever? certainly fever is always present. And if a man wishes to aggravate all its symptoms, and to hinder nature in restoring the system, let him follow this rule, and eat and drink even more voraciously than ever—as his appetite will tempt him to do. But if he wish to assist nature, and break up a cold in its very commencement, let him at once enter upon a course of rigid temperence, or even abstinence, avoiding all unnecessary exposure. In this way, it is said, indeed, that a man may come at length into the habit of ridding himself of every incipient catarrh, before it has fastened upon the head, or the lungs; and thus avoid one of the most common germs of fatal disease. A man has only to try this course faithfully once or twice, to be satisfied that the general practice of mankind, in such cases, is altogether erroneous; and that abstinence is the sovereign remedy. What monstrous absurdities have been palmed upon human belief in regard to the treatment of diseases! and how much more prone are the majority to receive the nostrums of quackery, than the results of knowledge and experience!*

One or two more remarks on the general subject of this lecture, and I shall close. If any one who hears me, should be induced to adopt in practice the rules of diet, for which

* The lively remark of a French writer will apply to most of the wonderful cures, that are so much celebrated in the community:—"C'est malgre eux, et non par eux, que ce bonheur est obtenu." It is not by the medicines, but in spite of them, that the cure is effected. *Le Catechisme De la Medecine Physiologique*, p. 245.

I have contended, I entreat him not to do it by halves. Let him make thorough work, both as to quantity and simplicity in food! or else let him not complain of these rules, if he do not experience the beneficial effects, which have been declared to flow from them. Many profess to be dieting, who, in fact, violate the rules of diet every day. Thus do they torment themselves to no purpose. They lose both the good effects, which rigid temperance would produce, and the pleasures of indulging the palate *ad libitum*. In a word, to be half way temperate, is to live and die a starving glutton.

Again, if a man enter upon the abstemious course that has been pointed out, let him make a persevering trial of it. Invalids, in particular, are apt to get discouraged, if they do not experience from such a course, a very rapid improvement, and even a speedy reestablishment, of health. They expect that the ravages of years of indulgence, will be repaired by a few weeks or months of temperance: whereas, *Revocare gradum, superasque evadere ad auras, hoc opus, hic labor est*. As Cheyne says, "in a low regimen, even when upon necessity and prudent counsel and advice a person has entered upon it, and has continued in it for a long time, they may have many plunges, discouragements and exacerbations. This interruption will only retard the cure a short time, and will give strength to perfect it."* Others fail in this matter, because they do not pay as strict attention to their exercise and other means of health, as to their diet. Some give over the contest, because their companions in health ridicule their peculiarities. And some become alarmed when their friends expostulate with them upon their danger of starvation. But more fail because they still exceed the rules of temperance in the quantity of their food. Appetite grows clamorous, and fancying themselves to be growing weaker, they begin to relax in their struggles, and like the ancient Israelites, when fed on manna, they exclaim, *Who shall give us flesh to eat? We remember the fish which*

* Diet and regimen, p. 56.

we did eat in Egypt freely ! the cucumbers and the melons, and the leeks, and the onions, and the garlic. But now our soul is dried away ; there is nothing at all besides this manna before our eyes. Wherefore have ye brought us up out of Egypt to die in the wilderness ? Let the invalid, who thus suffers his appetite to bring him back again, like the dog to his vomit, read his subsequent history in that of the Israelites. *So they did eat and were filled : for he gave them their own desire ; they were not estranged from their lust : but while their meat was yet in their mouths, the wrath of God came upon them, and slew the fattest of them and smote down the chosen men of Israel.* From all that I have seen and experienced, fully convinced I am, that only two things will give a man resolution to enter upon, and persevere, in the strait and narrow course of temperance, that leads to health and long life : one is, a deep and abiding impression, that he must either do this, or soon die ; and the other is, such a strength of Christian principle, as will make him feel it to be his imperious duty. Alas, that the latter is so often weaker than appetite ! and alas, too, that the former is not usually felt, until the constitution is irretrievably ruined !*

* Note M.

LECTURE III.

DIET, continued. *Third—Fourth—Fifth—Sixth—Seventh—
Eight—and Ninth Rules of Dietetics. Objection against
their rigor considered.*

GENTLEMEN,

The remaining rules in respect to diet, will not require so protracted an illustration and application, as the two that have been already considered. The third may be thus announced :

SEDENTARY PERSONS SHOULD NOT USE ANIMAL FOOD MORE THAN ONCE A DAY.

That persons in feeble health, may, under certain circumstances, require the constant and almost exclusive use of animal food, I admit ; but these are excepted cases, requiring the directions of a skilful physician. In ordinary cases, the general conclusion, that is now considered as established, by all respectable writers on diet, is, that men generally, but particularly the sedentary and the literary, should indulge in the use of animal food only at dinner.

Is animal food necessary at all ?

The enquiry, however, has been extensively agitated, whether animal food is requisite at all for the health and vigor of the animal system. In discussing this subject, an appeal is made both to the principles and discoveries of chemistry, and to the practice of different nations and individuals.

Chemistry of the subject.

Vegetable and animal substances are composed of the same simple principles, or elements, except that the latter

usually contain nitrogen in considerable proportion ; in which, most of the former are wanting. Hence the inquiry has arisen, how vegetable food alone can supply the nitrogen which the animal system demands ? Some have thought that the nitrogen of the atmosphere was taken into the blood, in the act of respiration : but the most modern and satisfactory experiments do not show that any of this substance is absorbed in this process. The conversion of the superabundant carbon of the blood into carbonic acid, seems to constitute the whole chemical result of respiration. Chemistry, therefore, does lead us to the conclusion, that some animal food is necessary to the support of life, unless the vegetables eaten should happen to contain it ; as some of them do.*

Experiments upon animals.

Majendie thinks that he has established the same conclusion by experiments upon animals. He fed dogs exclusively upon the most nutritious substances, that are destitute of nitrogen, such as sugar, gum, olive oil, and butter ; and in a few days they began to pine away, and died in every case, in less than forty days. He infers that it was the want of nitrogen that destroyed them. But Dr. Paris says, it was owing to their having received their food in too concentrated a state ; and that men and animals universally suffer, if their rich food be not sufficiently mixed with that which is less nutritive. The inhabitants of Kamtschatka, for instance, are frequently compelled to live on fish oil alone ; and they have learned that it is even better to mingle it with saw dust, than to receive it in an unmixed state.

Argument from Anatomy.

Throughout nearly the whole animal kingdom, we find

* "The existence of nitrogen is not absolutely indispensable in aliments, to render them nutritive. The system has other means of procuring nitrogen when it is wanting in alimentary substances—a case that very rarely occurs." *Nouveaux Elémens D'Hygien Deuxieme Partie.* p. 10.

that the structure of the frame points out the nature of the food destined for the support of the species. Thus the graminivorous tribes have uniformly a double row of grinding teeth, and larger stomachs and intestines, than those that live solely on animal food, and are hence called carnivorous. The latter are furnished with cutting and canine teeth to seize and devour their prey. Now man is furnished with both the kinds of teeth found in these classes of animals. Hence it is very rationally inferred, that he was intended to feed both upon vegetables and animals: or to speak technically, he is neither graminivorous nor carnivorous, entirely, but omnivorous. Some writers have even gone so far as to infer, from the relative number of teeth in the human species, adapted to animal and vegetable food, that men ought to use 20 parts of the latter, and 12 parts of the former. But the premises are probably too narrow for the conclusion.

Effects of animal and vegetable food.

As to the effects of these two kinds of food upon the system, it is agreed on all hands, that animal food is more nutritive and stimulating: that is, the same quantity of the former, will form more blood, and sustain life longer, than the latter. Hence, for men exposed to constant and hard labour, animal food is more important; though I cannot believe, that this is a sufficient reason for justifying the so common practice, among the labouring classes in our country, of using meat, in large quantities, three times a day. Certainly it does not render necessary their hearty suppers, when the toils of the day are over, and the stomach, as well as other parts of the system, need rest. But my concern now is with sedentary men: and as to these, the effect of much animal food, is to produce too much excitement in the system, and to urge on the powers of life too fast. Hence, in hot climates, men instinctively prefer a vegetable diet: and thus they escape many of those violent disorders, to which, those living very much on animal food,

are subject ; such as the scurvy, malignant ulcers, inflammatory fevers, &c. Animal food is also much more unfavourable to the free operations of the mind, than vegetable : hence one of the reasons why men are usually so unfit for study immediately after dinner ; though it is to be feared, that this is more frequently imputable to excess in quantity. The experience of Newton and Franklin, as to the favourable influence of vegetable food upon mental operations, I have mentioned in a former lecture. To these examples I might add many more, were it necessary. "Vegetable aliment," says Dr. Cullen, a name highly revered in medicine, "as never over-distending the vessels, or loading the system, never interrupts the stronger motions of the mind ; while the heat, fullness, and weight, of animal food, is an enemy to its vigorous efforts." Another writer says, that vegetable food "tends to preserve a delicacy of feeling, a liveliness of imagination, and acuteness of judgment, seldom enjoyed by those who live principally on meat."* Hence there is greater danger that the student will take too much, than too little, of animal food. In most cases, six or seven ounces per day, taken at dinner, is abundantly sufficient ; and the corpulent, and persons advanced in life, should reduce this quantity. Indeed, they would probably do best, in general, to confine themselves to vegetables alone.

In what cases a diet exclusively vegetable is best.

In any case, as Dr. Paris remarks, "it must be allowed that an adherence to vegetable diet, is usually productive of far less evil than that which follows the use of an exclusively animal regimen."† Cheyne says, that at fifty years of age, a man ought to lessen his animal food ; and at sixty, entirely give it up : "descending out of life, as one ascends into it, viz. by milk-porridge, water-gruel, panada, and the like." Most physicians also advise, that little if any ani-

* Sure Methods &c. p. 13.

† On Diet, p. 67.

mal food, except milk, should be allowed to children ; and indeed nature seems to instruct us in the same lesson : nor can it be doubted at all, that the prevalent system of stuffing and cramming children with all sorts of indigestibles, is a principal cause of the death of one third of those that are born, before they reach the age of three years.

Actual practice of mankind.

The practice of mankind, respecting the use of animal and vegetable food, supports essentially the views that have been given : though it must be confessed, that it almost leads one to conclude, that a diet wholly vegetable, would, upon the whole, be more favourable to human health and happiness ; though probably not so favorable to the development of the sterner features of our nature. The truth is, a large majority of men, do live, almost exclusively, on vegetables. Millions in Asia, are sustained by rice alone, with perhaps a little seasoning of vegetable oil : And although these Asiatics with their feebleness and effeminacy, may be regarded as no very flattering examples of the value of a vegetable diet ; yet when we compare them with the timid and stupid Laplanders, Esquimaux, and Samoideans, who subsist almost entirely on animal food, the other side of the picture does not seem more inviting. The Bramins of Hindostan, even in their exhausting climate, are noted for longevity. And when we recollect that the Neapolitan Lazzaroni, with their active and well proportioned forms, are sustained by bread, oil, and sallad ; and that millions of the Irish peasantry, proverbial for vivacity of mind, robustness of body, and capability of enduring fatigue, scarcely ever eat meat ; and that the Scotch and Swiss peasantry also—as fine examples as the world can afford of health and bodily strength—live chiefly on bread, milk, and cheese ; surely, we shall not be disposed to insist upon it, that ani-

mal food, even in high latitudes, is essential to the full development of the powers of man.*

Intemperance.

According to this view of the subject, what opinion shall we form of those students, who think they cannot make out even a tolerable breakfast, without a good supply of meat? and who will eat meat, even three times a day, if it be set before them? Surely we must conclude that they are slaves to their palates; and consequently will never exhibit any great vigour of mind, or proficiency in literary pursuits. They will probably tell you, that they find nourishing food necessary to give them strength; and if they neglect to take this, they shall be so debilitated, as to be unfitted for study. This is just the plea the intemperate drinker uses, to vindicate his poisonous draughts. True, if he neglects these, debility follows; because it is an abstraction of the usual stimulus, and his system is so much injured, as not easily to move on without it: and this is precisely the cause of the debility the intemperate eater experiences, by giving up his animal food in the morning. Now the opinion of most men is, that debility is a real disorder, and if by some stimulus they can remove it, they have removed the disease: Hence the great fondness they exhibit for tonic and bracing food and drink. Whereas, debility is merely a symptom of some oppression, irritation, or inflammation, in some part of the body: and this whole system of bracing and strengthening the invalid by nourishing food and drink, is, in most cases, the effectual way to aggravate the disease; although it affords a temporary relief to the debility: For, too much food, irritating the stomach and bowels, in a majority of instances, is the sole cause of the debility. The

* For a fuller discussion of this subject. see Paris on Diet, p. 63. Sure Methods, &c. p. 11. Smellie's Philosophy of Nat. History, Ware's first Edition, p. 148, and Edinburgh Encyclopedia, Article *Aliment*.

contrary course, that is, a spare and simple diet, is generally the method of removing the cause, and ultimately the debility. But quacks will tell men otherwise! and here is the strong hold of empiricism. Their nostrums, elixirs and balsams, are all calculated for the alleviation of symptoms, and not for the cure of diseases: Now it is not a difficult matter to soften down the symptoms; and when this is once done, the cure is proclaimed; whereas, the embers are raging within, struggling to get vent, and will ere long break out in tenfold fury. But until men shall learn in some measure to distinguish between symptoms and diseases, they will continue to be the dupes of newspaper quackery and unprincipled ignorance.

Stimulants and tonics for debility.

According to his own account, "says the Journal of Health," the invalid is in a state of debility. This to a certain extent, is true; but it is a debility that can be removed only by restoring to health the organ primarily affected: a task for which the experienced physician is alone competent. But the sufferer is of a different opinion: he is debilitated; all he requires is something to restore strength to his system generally; additional and more stimulating food; some cordial or elixir—some potent tonic! These are soon obtained; a momentary excitement is the result, to sustain which requires their frequent repetition: but so far from any permanent advantage resulting from their use, the symptoms advance with increasing rapidity; the individual becomes more and more exhausted; and if he fall not a speedy victim to the disease itself, he too often does to the effects of intemperate habits induced by the remedies to which he has had recourse."*

Fourth dietetic rule.

The fourth rule of dietetics, which I consider as estab-

* See Note N.

lished, is, that LITERARY MEN SHOULD TAKE ONLY THREE MEALS PER DAY AND NO LUNCHEONS.

Breakfast.

After the rest and the fast of the night, it is natural that the stomach should demand food in the morning. But as it comes immediately before the most active labors of the day, it should be moderate in quantity, and simple in quality; consisting usually, in this country, of a little tea, or coffee, or milk, or milk porridge, or water and milk, with bread and butter, or dry toast. It should be taken about an hour after rising; and, therefore, should usually be ready from six to seven o'clock;—say six in the summer, and seven in the winter. This will leave five or six hours before noon for study and exercise—which are emphatically the golden hours of the day; and the student should calculate to get through with the most laborious part of his daily duties, during this period.

Dinner.

By twelve or one o'clock, the stomach will have thoroughly digested the light breakfast taken at six or seven, and have rested besides one or two hours, so as to be prepared for dinner, the principal meal of the day.

Supper.

Five or six hours after dinner, a cup of tea, or milk and water, cold or hot, according to the season, may advantageously be taken, with a smaller quantity than in the morning, of vegetable food. The less of this, however, the better; and perhaps the invalid will best consult his comfort, by omitting it altogether, unless perhaps to the amount of one or two crackers.*

Violations of this rule.

I can hardly move a step on this subject, without coming

* See Note O.

into collision with the habits and practices of society. You will perceive that the course which I have here marked out, is directly opposed to that pursued by multitudes.

First mode in which it is violated.

Many, in the first place, violate this rule, by irregularity in the times of taking their food. If their dinner be delayed an hour or two beyond the proper time, they seem indifferent about it, as their appetite will be better, and they shall enjoy the repast better. But they will be sure to overeat. Exactness and uniformity in respect to the hours of meals, is considered by physicians as of the first importance to those who are in feeble health. One of them remarks, that he has often said to his patient; "I will waive all my objections to the quantity and quality of your food, if I am sure that such a sacrifice of opinion would insure regularity in the periods of your meals." I am happy, however, in knowing, that the regular routine of college exercises, prevents almost entirely the occurrence of this difficulty among us. May all learn so thoroughly the value of regularity in this respect, as never in after life, to be induced to swerve from it.

Second mode.

In the second place, others violate the rule under consideration, as above detailed, by indulgence in more than one hearty meal per day. Some, even some students, are in the habit of taking three hearty meals in a day: that is, they devour at each meal, quite as much as the most lax rules would allow for dinner. Yes, not a few young men do this; men who are full of expectation that they are going to rise high in the world in learning and usefulness. But without an alteration of their habits, they will always remain mere scavengers in literature and religion. For if, as a wise man has said, "the second meal, (that is, the second full meal,) makes the glutton,"—what can the third make, but a beast? Among the ancient philosophers, the

eating of more than one hearty meal in the twentyfour hours, was considered monstrous. What have you seen? said a friend to Plato on his return from Sicily: *Vidi monstrum in natura; hominem bis saturatum in die*. Literally, "I have seen a monster in nature; a man twiced stuffed in a day!" What would Plato think, could he be revived from the dead, and were to spend one week only, in many of the boarding houses connected with the literary institutions of our land! Oh, let every Christian youth, on whom this satire falls, be ashamed to be thus reproved by a heathen!

Third mode.

In the third place, this rule is violated by many, in taking dinner at a late hour; or, as it is called, the fashionable hour; and a consequent delay in the other meals. I rejoice, indeed, that in this institution, we are free from this pernicious practice; and I rejoice also in the fact, that the great mass of the yeomanry of our country have their dinner upon the table at twelve o'clock—the hour which nature and reason point out as the proper one for the principal repast. But the habit of late dinners, which originated in the unnatural and luxurious habits of the higher classes in cities, is certainly gaining ground among the same classes, even in the country: so that the temperate student is liable to be annoyed by it wherever he goes. Every literary man, therefore, should make up his mind on the subject of its utility; and if convinced of its bad influence, be prepared to raise his voice and example against it.

Objections to late dinners.

The objections to late dinners are these: first, the bodily powers are not as well able to bear the digestion of a hearty meal near evening, as in the middle of the day. The pulse is then quickened and the secretions lessened, and the system begins to feel the need of repose. Secondly, this practice furnishes an almost irresistible temptation to excess in eating: the appetite having been so long denied

gratification, that in a healthy man, it must become ravenous before five or six o'clock, or even before three or four. Thirdly, to prevent this suffering from hunger, men are tempted, either to eat excessively at breakfast, or to fall into the unhealthy practice of taking luncheons. Fourthly, the practice almost infallibly results in late suppers, late retiring to rest, and late rising in the morning, and consequently, in late breakfasts. And the inevitable result of thus inverting the order of nature, and turning night into day, and day into night, is debilitated constitutions, nervous maladies, and imbecility of mind. Wherever you find late dinners, you always find more or less of these effects. But if dinner be taken at twelve, or one, tea will not be delayed longer than six or seven; and consequently, men will be prepared to retire to rest at nine or ten; and in the morning, they will rise at five or six: thus employing the night for repose, and the day for action, as God intended. Late dinners among the great mass of the community, would, therefore, be one of the greatest evils that could come upon them. It is hence the duty of every well wisher to his country, to resist the ruinous custom by his example and influence. It is true, that the inhabitants of our cities plead in behalf of this custom, that it is more convenient to finish their daily routine of business before dinner; and that they cannot find time for dinner at twelve or one: nor do they feel as well qualified for business after dinner as before it. But were they to commence business at six or seven in the morning, instead of nine or ten, there would be no want of time; and were they to dine as temperately as they ought, they would be refreshed instead of stupified by the repast, and ere long might resume business with as much alacrity as ever. How any Christian parent can consent to educate a family of children, in this system of late hours, with all its hurtful accompaniments, and thus take an almost infallible method of debilitating their bodies and their minds, I confess I do not see. Nor do I wonder at a fact stated by Dr. Johnson, in regard to the inhabitants of London, that

“we shall not find one in ten whose digestive organs are in a natural and healthy condition :”* nor at another fact, stated by a different writer, that while in the country the annual mortality is only one in about sixty, in London it is one in twenty.† Hence is seen the truth of the remark, that “*large towns are the graves of the human race* :” hence too the ground of the exclamation of the Roman poet :

—————pericula mille
Saevae urbis !

But if those who live in the cities will persist, (as doubtless they will in spite of my expostulations,) in their late dinners and late hours, let them do it ; let also the glutton do it, and thus the sooner relieve the society which he burdens ; and we will join the poet in saying,

“Lusisti satis, edisti satis, atque bibisti ;

“Tempus abire tibi est.”‡

But I protest against the encouragement and introduction of these habits in the country, as some, who are aping city manners, are attempting to do. Happily it is not, as I believe, too late to sound an alarm on this subject among the sober and religious citizens of our interior. In most cities such an appeal would be useless. Even physicians there, seem to be yielding up the point, or rather striving for a compromise. “No dinner,” says one, “should be taken later than four o’clock, and in fixing this hour I go to the utmost limit allowed by the principles of health and longevity.”||—“With regard to the proper period at which invalids should dine,” says another, “physicians entertain but one opinion ; it should be in the middle of the day, or at about two or three o’clock.”§ “Early breakfast,” says a third, “dinner as near the middle of the day as fashion, or

* Influence of Civic Life, &c. p. 21.

† Sure Methods, &c. p. 107.

‡ Hor. L. 2. Epist. 2. Lin. 212.

|| Sure Methods, p. 72.

§ Paris on Diet, p. 134.

folly, or pride will permit, &c.”* These receipts were written for the latitude and longitude of London: and it seems that there, these physicians consider it altogether useless to tell men that they ought to dine at twelve o’clock. and so they say, if you will not delay till seven or eight, we will meet you half way, and consent to let you have till three, or even four, to prepare to gormandize.

Luncheons.

In the fourth place, the rule under consideration, requires that luncheons be dispensed with: that is, food should not be taken in the intervals between meals. If a person, indeed, be so weak, that he cannot bear enough to sustain him at three meals, he may increase their number. But in this case he will need to be under the physician’s care; and therefore, he is not in a condition in which I shall undertake to prescribe for him. Others will tell us, that without their luncheon, they find themselves so faint, that they cannot attend to business. And so does the drunkard, who is deprived of his cups at the regular hour, and for the same reason; viz. that his stomach has been accustomed to the stimulus at that time. But let him, and let the luncheon eater, resolutely persist for some time in denying the calls of appetite, and the palate will crave no more than at any other hour. We are in these things the creatures of habit: and we can learn the stomach to crave, or not to crave, food and drink, at particular seasons, very much as we please—provided we furnish it with enough to sustain the health and strength. The faintness and weakness, which a person feels, by neglecting his luncheons, are of the same character, as that debility which the excessive eater feels for a time, when he reduces his food to a healthy standard; resulting more from a change of habits, than from real weakness.

* Johnson on the Liver, p. 189.

The worst time for taking luncheons.

Of all luncheons, the worst are those taken a short time previous to the hour of rest in the evening. It is the sure way to produce restlessness and sleeplessness at night, and dullness and headache in the morning. It is, indeed, the very worst time in the twenty four hours, for taking food. It is the original cause of those late suppers, which are indulged in by many of the wealthy and luxurious, and which are preeminent in the list of indulgencies that shorten life. "Cardan observes, that he had conversed with many persons, who had lived to be a hundred years of age, and they all declared to him, that they had made it a rule to eat little at night." It is like loading your horse with a heavy additional burden, after he has been toiling all day, and is weakened by fatigue: or like filling up the mill hopper, when the water is nearly run out. People may tell me, that they cannot sleep without this luncheon, or supper, just before bed time: but they may rest assured, that a persevering indulgence in it, will ere long bring on a sleep, that will be broken only by the archangel's final shout.

When shall we eat fruit and sweet meats.

But some will enquire, when, according to these principles, they are to be allowed to partake of those delicious fruits and sweetmeats, which, to many, constitute so much of the pleasures of an evening entertainment, or of the family circle? If you are an invalid, I reply, you had better not take them at all; and if in health, the more abstemious you are, in respect to most of them, the better; though I would not be understood as condemning the use of ripe fruit, at the proper season. Indeed, a moderate quantity of it, is undoubtedly salutary in health, and even in many cases of debility. But it should be eaten at the regular meals,—particularly at breakfast,—and as a part of the meal; the other food being proportionably lessened in quantity.

There is an old saying, founded in truth, "that fruit is gold in the morning, silver at noon, and lead at night." It is lead at any time of the day, when taken between meals; but late in the evening—the usual time of passing it to company—it is dross: Especially when apples, almonds, walnuts, raisins, &c. are crammed down, one upon another, as they often are, into the stomach of a dyspeptic student, or delicate nervous lady. To crown all, some two or three kinds of sweetmeats, as compound and indigestible as cookery can make them, are loaded into the stomach, and then a glass of wine, or cordial, is added, to drown the groans of laboring nature. And this is done, too, by professing Christians; who are commanded to be temperate in all things, and who are told that their bodies are the temples of the Holy Ghost!*

Eating without cessation.

Scarcely less censurable, or fatal, is a practice indulged in by students, probably more than any other class in society; I mean the repeated use of apples, nuts, raisins, and other fruits, between their meals. In this way, many accustom their stomachs to be incessantly craving some such pernicious article, which constantly disturbs the process of digestion, and ends in gluttony and dyspepsy. Indeed, some cannot cease their champing, during the short season of lecture or recitation; and they make it a rule, just as some animals do, to strew every room where they are admitted, with the husks, the shells, and the cores. Persons of such habits will not find it so easy a matter to get rid of them, when, at a future time, they shall find that such slovenly practices would turn them out of a lady's drawing room, or a gentleman's parlor.

* There is much diversity of opinion among dietetic writers, as to the best time of day for eating fruit; but nearly all agree, that it ought to constitute a part of some one meal.

Eating by stealth.

By indulging in the use of luncheons surreptitiously, as it were, many invalids defeat all their pretended efforts in dieting. However particular they may be as to what, and how much they eat, it is all useless, until they will resolutely govern their appetites during the intervening periods: unless, indeed, this period, at any particular time, should be unusually long, and extra exertions should be requisite, when some simple food, as a piece of bread, or a cracker, may be taken with impunity.

Fifth rule of dietetics.

The fifth rule of dietetics is, **TO EAT AND DRINK SLOWLY.**

Mastication.

A physician of distinction, whom I once consulted, said to me, "have you ever thought for what purpose Providence gave you teeth?" It was a fact that I had never deliberately done this; and from the hurried manner in which most people swallow their meals, I fear few persons ever do it. The fact is, imperfect mastication operates very unfavorably in two ways. It prevents the food from being properly comminuted for the action of the gastric juice; and does not afford the saliva an opportunity to be properly mingled with it. To expect that the stomach will produce healthy chyme, from food thus driven pell mell into it, is almost as unreasonable, as for the Egyptian task masters to require brick without straw. Here then we perceive one important reason for the rule above announced.

This rule prevents excess in eating.

Another reason for its adoption is, that it tends to prevent excess in eating. Physicians may not agree in assigning the reason, why the same quantity of food introduced

slowly into the stomach, satisfies the appetite much more effectually, than when eaten rapidly : But as to the fact, there can be no doubt. Every person must have observed, how a short interruption in the midst of eating, has diminished, if not entirely destroyed, his appetite, and produced the feeling of satiety. The same thing happens in a less degree in eating slowly. But he who forces his food half masticated down his throat, as a farmer would load a cart, just before a thunder storm, will have exceeded in quantity, ere the feeling of satiety gives him any warning.

Pleasures of eating.

This rule is recommended too, by the superior pleasure to be derived from eating slowly. Dr. Faust, in his excellent Catechism of Health, a work which Dr. Rush recommends for parents to teach to their children, inquires ; " What gives the most delicious relish to food ? Answer : Hunger, and the thorough chewing of the food." (p. 53.) The man who spends half an hour in masticating six ounces of food, experiences vastly more pleasure from it, than he, who eats two pounds in half that time. It is difficult perhaps, to fix upon any precise number of minutes, that ought to be assigned to our meals. Some physicians say, that dinner ought to occupy not less than an hour. Perhaps this is too much, for those who dine on one dish ; but certainly it is desirable to devote half that time to each meal.

Students violate this rule.

Students, I believe, are proverbially violators of this rule. From what I have seen, I do not believe that the average length of time, given to their meals, by the members of our colleges, exceeds ten minutes. Not improbably it would be found, that it does not exceed five.

How to learn to eat slow.

To conquer this habit is no easy task. A great help in overcoming it, is to adhere to the rules, as to quantity and

variety, that have been discussed. When a person first sits down to the table, let him collect before him, every particle of food which he intends to eat at that meal. Knowing that he shall have a good appetite when he finishes this, he will be induced to enjoy it as long as possible.* Another help is to divide his food into as many portions as he conveniently can, and then admit only one piece into his mouth at a time. If in addition to this, he should make it a rule to lay down his eating apparatus after every mouthful, he will find the practice a good rein upon his appetite.

Some may think it unnecessary nicety to be thus particular in a public lecture. But I regard nothing unnecessary, on such a subject, that will help you to conquer a bad habit. Nor am I very fastidious about literary niceties, when they come in competition with a plain and forcible development of important truths.

Sixth dietetic rule.

But after all, the most important precaution in this case, is always to SIT DOWN TO THE TABLE, WITH THE MIND FREE FROM CARE, INTENSE THOUGHT, OR PASSION, AND DISPOSED TO BE CHEERFUL AND SOCIABLE. So important is this direction, that I shall give it as the sixth rule in dietetics. So intimate is the connection of the mental with the corporeal powers and operations, that any strong excitement of the mind, will most effectually check, if not entirely stop, the process of digestion. A violent fit of anger, coming on when a person is eating with a good relish, or the reception of distressing news, will as assuredly destroy the appetite, as a fit of apoplexy: while, on the contrary, agreeable and easy conversation, kindness and hospitality, or pleasant intelligence, will create an appetite. So we all know, that heavy cares, or afflictions, will indispose for taking food. Severe thought will do the same.

* Note P.

Anecdote of Sir Isaac Newton.

Sir Isaac Newton retired one day to his study, and gave orders to his servant that he must not be disturbed. A friend called to see him; and learning his directions, waited for him at the hour of dinner. But Sir Isaac not appearing, the friend took his place and devoured the chicken. Newton coming in soon after, and seeing the picked bones upon the table, exclaimed, "I thought I had not dined, but I now find that I have."*

State of the feelings influences digestion.

According to these views, we learn that when a man is in an agitated state of mind, he is not in a condition to sit down at the table; he had better wait till he is cool and composed, and if possible, till he is cheerful. For the same reason, he should not engage in eating, while poring intently over a mathematical or metaphysical problem. And no gentleman, who understands good manners, will introduce at table, any subject for discussion, that is likely to call forth strong feeling, or vigorously to exercise the powers of the mind. For the same reason, reading should not be indulged in while eating, unless it be of a character to amuse rather than task the mind; nor should any details be given that are calculated to harrow up the feelings and produce strong emotion. In all cases where these rules are not regarded, you will find men eating and drinking in a hurried manner, forcing down their food almost without chewing, and plying their knives and forks with gluttonous rapidity.

Good effect of mutual civilities at table.

This principle shows us, also, that the mutual attention to one another's wants, which good breeding demands, at the table, contributes no less to health than to good manners. By striving to help your neighbour first, and to the best,

* Library of Useful Knowledge, No. 50, p. 18.

you put him, as well as yourself, in good humor; and pave the way for pleasant conversation and for a return of favors. The man who takes care of himself only at table, appropriating to his plate, whatever his appetites craves, and then gormandizes in silent moroseness, will be amply punished by the clog he thus puts upon his digestion. When the poet would describe a total unhinging of society, and the obliteration of every fellow feeling, he says,

—“ And each sat silently apart,
Gorging himself in gloom.” (*Byron.*)

Literary discussions at table.

In view of the rule under consideration, I more than doubt the expediency of the practice at some of our seminaries of learning, of introducing some regular theme of discussion at table, the principal presiding. It has a show of great economy in point of time. But it is cheating the stomach out of the hour that properly belongs to it; and depend upon it, that organ will be revenged upon the intruder. There will be too much of formality and constraint at such a table; and pupils when questioned, cannot but feel such an excitement, as to be injurious.

Seventh rule of dietetics.

A seventh rule of dietetics, in which physicians agree, is
NOT TO INDULGE IN A FULL MEAL WHILE MUCH FATIGUED.

Remarks of Dr. Wallis.

“ The generality of mankind,” says Dr. Wallis, in his Art of Preserving Health, “ are accustomed after they have suffered fatigue, and that perhaps severe, from hunting, shooting, cricket playing, walking, or any other species of undue exercise, to indulge their appetites, by eating copiously of solid food, and think it one of the advantages thence arising, that they are enabled to throw down such a load of gross materials; nay not content with this, they make it

float in porter, ale, or some other viscid liquor, and afterwards indulge themselves with a jolly bottle. This practice they think supported by reason; for when the machine is exhausted, they argue, it is most natural to conclude that it requires much refreshment. If we examine, however, the effects of such indiscreet conduct, we cannot hesitate to pronounce it erroneous, and to condemn the practice. For after eating and drinking copiously under such circumstances, the system grows dull and heavy, and general lassitude comes on; the pulse grows quick, the face flushes, a temporary fever ensues; the skin is dry—the mouth clammy—thirst attends—and in the place of that recruited strength, alacrity and cheefulness they expected to obtain from their healthy meal and night's repose, they arise in the morning after a few hours of disturbed sleep, weary and depressed with pain, or stiffness in the joints, an aching head, and a stomach loathing its accustomed food. Nor can it be otherwise; for the digestive powers of the stomach, in that state of exhaustion induced by fatigue, are incapable of performing the task to which they are excited; and the load of food which is taken, in place of recruiting the strength and activity of the system, is a cause of suffering and disease, extending from the stomach itself to the residue of the system.*

Exercise before meals.

These remarks must not be understood as implying that exercise before meals is not important: for that is, indeed, the best season during the day: But when that exercise has been carried so far as to induce considerable fatigue, the diet should be confined to liquid food chiefly, or that easily digested, such as plain broth, milk, light bread, or pudding: or else a man should take time for nature to recruit her exhausted energies before partaking of his repast.

* Journal of Health, p. 110.

May a man eat in proportion to his exercise ?

There is a prevalent opinion, that a man may eat in proportion to his exercise : and it is undoubtedly true, that vigorous exercise will, in a measure, counteract the bad effects of excessive eating. But in the case under consideration, that is, when the exercise becomes fatiguing and exhausting, we see that the rule will not apply. Hence there is no small danger in taking it for our guide ; although it is supported by the authority of Lord Bacon. The better rule is to adhere always to nearly the same quantity from a single dish, and to suffer ourselves to exceed it but very moderately, even when journeying, or otherwise spending our whole time in active exercise abroad : For experience assures us, that even in such cases, nature does not require any very great addition. We shall then always be safe from excess, without the danger of starvation.*

Injurious habit of public speakers.

The rule under consideration shows how very injurious is the habit of some speakers, particularly clergymen, of eating very heartily soon after a fatiguing effort in public. The anxiety which they feel previous to the effort, usually moderates their appetite : but when the work is finished, they give up the reins of self control and indulge in the most hearty food and the strongest tea or coffee, even to satiety—not aware that the stomach, like every other part of the system, then needs rest. The consequence is, an uneasy wakeful state of the system, which physicians call the digestive fever. Hence results most of the clergyman's sleeplessness and nervous excitement sabbath night ; and hence too, many of what he calls his *Mondayish feelings*. Let his supper be unusually light and sparing on the Sabbath, and let him contrive to get some active bodily exercise in the evening, and he would find sleep no stranger to his couch, nor Monday a day of yawning and listlessness.

* Note Q.

Eighth rule of diet.

An eighth rule respecting diet may be added, which directs that OUR FOOD AND DRINK SHOULD VARY SOMEWHAT WITH THE SEASONS OF THE YEAR.

Animal food, for example, is better fitted for the winter, than for the spring or summer; because then the system needs to be more braced to resist the cold, and to endure the more vigorous exercise which is requisite to health. But in spring, a change of no small magnitude takes place in the system. The sluggish movements and torpid action of winter are succeeded by greater mental susceptibility, more acuteness of feeling, increased circulation of the blood, and a greater flow of perspiration and sensibility of the digestive organs. This change brings along with it a susceptibility to new forms of disease, and demands peculiar attention to that fruitful source of disorder as well as of health—the digestive process. The food generally, but animal food in particular, should be diminished in quantity, and its quality be nourishing, but not irritating. Ardent spirit, wine, and every species of stimulating drink, should be most carefully avoided: even tea and coffee are often injurious at this season, and should in such case be abandoned. People are apt to imagine, that in the spring their blood has become impure and needs the apothecary's compounds to correct it. But, says the *Journal of Health*, "Increase of thirst, feverish heat, pains of the head; or palpitation, with a sensation of languor or uneasiness, are best obviated by a reduction of the usual quantity of food—and a substitution, almost entire, of vegetable for animal food. Copious potations of water, at this season, will be found the very best purifier of the blood and remover of all peccant matter; while milk, as an article of diet, with good light bread, baked on the preceding day, or vegetables, may be regarded as the grand cordial and true tonic. This is in many countries, the food of the robust ploughman and hardy mountaineer, whose spirits are strung in a very dif-

ferent key to what the sipper of wine and cordial, the bibber of beer and porter, or the tippler of ardent spirit, can boast of."

Diet in Summer.

During the relaxing heats of summer, essentially the same course, as to diet, should be followed, as in the spring, by all who would secure an immunity from disease. The cool, the light, and the little, should be sought, and the gross, the stimulating, and the indigestible, should be shunned. How many would in this way avoid the prevalent fevers, dysenteries, and other violent disorders, that cut down so many in early autumn! But when one and another falls before these complaints, no one thinks of looking for their causes to the dietetic excesses of the preceding months.

Ninth rule of diet.

The ninth and last general principle in respect to diet, must be expressed in a rather general manner, to embrace those points on which there is a general agreement among dietetic writers. It is this: SOME ARTICLES OF DIET ARE MORE NUTRITIVE AND MORE EASY OF DIGESTION THAN OTHERS; AND SOME ARE ENTIRELY DESTITUTE OF NOURISHMENT.*

Materia Alimentaria.

I now come to a part of the subject which men generally regard as the essence of dietetics, viz. the comparative value of the different kinds of food: But I have already expressed the opinion that this is of much less importance than is supposed. Still, it is a wide field, and must not be left altogether unexplored. In respect to a few articles of the *Materia Alimentaria*, as Dr. Paris calls it, I shall enter into a minute examination; because they have a most important bearing upon man's temporal and eternal interests: while in respect to the others, I can only briefly notice their leading properties and effects.

*See Note R.

The course proposed to be taken.

All our alimentary substances are naturally divided into Liquid and Solid. I shall first consider those that are liquid. And before such an audience as this, it seems peculiarly desirable, that we should examine as philosophers, patriots, moralists, and accountable beings, the nature and effects of those alcoholic and narcotic substances, that are in such general use among all classes of society; particularly ardent spirit, wine, opium, and tobacco. These are not, indeed, all liquid; but coming into the same class of substances, because they have many properties and relations in common, they are most conveniently examined together. And in this examination, I am determined to follow the course which philosophy, prudence, patriotism, and religion point out as the path of temperance. I am aware that it may lead me close along in front of the heavy batteries of public opinion, prejudice, and evil habit. But I am determined not to turn to the right hand or the left, however warm may be the fire that may open upon me; for though it may be easy to cut *me* down, it is of little consequence, provided the truth remain: and I feel strong confidence that this will not be easily overthrown; for *magna est veritas, et prevalebit*.

Dangerous to push this subject to extremes.

I am aware that many will consider me as taking an injudicious course, in attempting, as I have done, and purpose still to do, to draw out and apply the principles of temperance so closely, so rigidly, and so universally. They will regard it as the sure way to defeat my object: because men cannot be persuaded to go to such extremes. They will not give up every luxury and every unnecessary indulgence of the palate: and therefore, we ought to direct our efforts against those only, that are most hurtful; leaving to them the smaller and comparatively harmless indulgences, if they will abandon the more pernicious. To grasp at so much, is to lose all. Instead of attempting to adopt such as-

cetic rules, men will reject the whole, as entirely Utopian and impracticable.

Reasons for giving definite and perfect rules.

That but few persons will be induced to incorporate the principles of universal temperance into their practice, is what I expect. But that this furnishes a sufficient reason for modifying and softening down these rules, so as to suit the caprices and morbid appetites of men, I do not believe, for the following reasons.

Moral rules require perfection.

1. The moral philosopher knows full well, that no man will ever perfectly put in practice the rules of ethics; yet he does not regard this as a reason for softening down and modifying these rules to suit the humours of men. But he presses them in all their unyielding strictness, as demanding perfect obedience. And does the perfection of moral precepts render them nugatory, or furnish any excuse for rejecting them?

Law of God perfect.

2. The law of God, requiring supreme love to him, and sinless perfection in every man, was never yet obeyed completely in its spirit by any mere human being; nor will it ever be thus obeyed in this world. But God did not, therefore, lower its demands; and endeavour to accommodate it to man's deficiencies and likings. This would have converted it into a mass of wax, which must be moulded into different shapes in different states of society. He has given a perfect and invariable standard, and the nearer men come to it, in their conduct, the better: but heaven and earth must first pass away, before he will lower down, or alter, any of its requirements. Now the rules of temperance are only one of the branches of morality and religion.—Why then should we not urge them upon men exactly in the form in which philosophy, experience, and religion, de-

clare them most perfect, and best calculated to promote human happiness? This is what I have endeavoured to do. If I have not stated them correctly, that is another thing: and I shall most cheerfully see them corrected. But I maintain that because men will not adopt them, it is no reason for giving them a modified, accomodating form. I have not taken my own experience as the infallible guide, expecting that every man must come up precisely to that standard in diet, exercise, and employment. Indeed, I do not pretend that my own practice, is perfectly conformed to these rules, any more than it is to the rules of morality and religion. But because I have not the resolution and the government of my appetites, sufficient to observe these in perfection, shall I, therefore, bring them down to my defective practice? Derived as they are, from the principles of philosophy and medicine, and the testimony of general experience, I have not dared to give them any other form, even when they seemed at variance, (as in a few minor cases they did,) with my own particular, limited experience. And satisfied as I am, that he who comes nearest to their perfect observance, will be most benefited, I would not present them in an other form, any more than I would modify the principles of ethics or religion. I wish it to be distinctly remembered, that my object is not to give merely *good* rules, but the *best* rules; not to point out a standard that will be of *some* service, but a standard which is the best that can be ascertained. And I am confident that with such a standard before him, every man, who attends at all to diet and regimen, will be more successful in his efforts, and rise higher, than if that standard were low and accommodated to the tastes and prejudices of society. And as to those, who are repulsed by its strictness, they would probably be repulsed by any rules rigid enough to do them good.*

* See Note S.

Loose and imperfect rules have failed to do any good.

3. But in one branch of temperance, the experiment of acting according to what would be called a more liberal and accommodating principle, has been tried ; and utterly failed. A few years since, numerous associations were formed in the land, whose object was to discourage the intemperate use of ardent spirit, by lending the power of example in favor of a moderate use : but since men's views differed as to what constituted a moderate use, the result was, that every one used just as much as he chose ; while the drunkard ridiculed the plan as a mere farce. But just so soon as the fundamental principle of total abstinence was taken as a guide, which multitudes still consider as too rigid and self denying for their adoption, intemperance received a prodigious shock ; and temperance commenced its march, from conquest to conquest, and from victory to victory.

Now this history is a most instructive lesson, as to other branches of the same subject. I never yet saw a drunkard, or a glutton, who would not join me, in condemning luxurious eating and drinking : but where does all this take place ? Oh, I am not guilty of it—but in some cities or towns far hence, the rich and the indolent are very intemperate. And just so will all men look somewhere else than to their own practice, for the evil ; until the rules of diet are applied so clearly and particularly, as to bring home the faithful warning, *Thou art the man*. Merely to tell men that they ought to be very temperate in their diet, while you do not mark out the limits of temperance, nor apply its rules, is one of the most useless of all kinds of instruction.

Students should not wish for accommodating rules.

4. Finally ; the character of my audience, as it seems to me, renders it peculiarly proper, that I should urge a very high standard of temperance for their adoption. They are young men, who cannot plead the power of bad habits, indulged till they have become a second nature, as the more advanced in life often do. Nor, can many of them tell us

of long continued infirmities, and debilitated constitutions, which might receive too severe a shock from great and sudden changes in living. In short, they have that youthful vigor, and that pliability of constitution, which will enable them with comparative ease, to adopt the most thorough system of training, that philosophy and experience approve. To them, therefore, may the inspired principle be addressed in its strictest meaning : *Every man that striveth for the mastery, is temperate in all things.* And the peculiar reason for addressing it to them, may be given in the words of another inspired writer : *I have written unto you, young men, because ye are strong.* Moreover, these young men are students ; who ought, therefore, to sacrifice every sensual indulgence, and be willing to endure any self denial, whereby they may attain vigor and clearness of thought, and the power of close application to study : for they are the young Samsons, who are hereafter to help sustain the pillars of our intellectual greatness. They are to furnish a quota of our future legislators, and civilians, and ministers, and missionaries. Add too to all this, they are coming forward at an age, when the energies of the human mind are waking up to mighty efforts ; and when they will need every aid, which mental and bodily discipline can furnish, to sustain them in the high places of conflict. And shall I talk to such men, in such circumstances, of making a compromise between temperance and appetite ? Shall I fear that they will be repelled by any rules, however strict upon animal nature, if their effect be to fit them for the high and holy achievements on which they have set their hearts ? And especially when I recollect, that these young men are most peculiarly exposed to be assaulted and overcome by dyspepsy ; and that every year we see no small draft made upon their number, by this unmerciful scourge ; shall I fear that the only weapons by which they can be defended, and which I am endeavouring to put into their hands, will be too, bright and keen ? Were I addressing an assembly of farmers, or hardy mountaineers ; of soldiers, or of sailors ; I

should hardly need to remind them that they have stomachs ; so securely defended are they against this enemy, by the plaited, seven fold armour in which their occupations encase them : But not so with literary men ; or any others of sedentary habits. They must be taught, that such a subtle and desperate foe, cannot be repulsed, or kept at bay, by parleying ; or by any armour half buckled on, or by any *telum inbelle Priami*. He must be met in the “ panoply complete ” of temperance ; And if I can persuade the young men of this, or any other literary institution, resolutely to buckle it on, and to stand always braced for the conflict, I shall not fear to begin the shout of victory.

LECTURE IV.*

Alcoholic and Narcotic Substances, as Articles of common Use: viz. Ardent Spirit, Wine, Opium, and Tobacco. Appeal to Students against their use. I. On the ground of Philosophy.—Water recommended. II. On the ground of Self Interest and Prudence. III. Of Patriotism. IV. Of Religion.

Quantity of Alcohol in Spirit and Wine.

GENTLEMEN,

THE substances in common use which contain the largest quantity of alcohol, are ardent spirit and wine. The proportion of this principle, in 100 parts, of the most usual varieties of these articles, is as follows :

Rum,	54
Brandy, (French)	53
Gin,	52
Scotch Whiskey,	54
Port Wine, from 19 to	26
Madeira, “ 19 “	24
Currant Wine,	21
Sherry, Lisbon, & Malaga, from	18 to 20
Claret, from 13 to	17
Tokay,	10

Adulteration of wines.

Nearly all the wines used in this country contain a much larger proportion of alcohol than the above table indicates ;

* Originally published as a Prize Essay by the American Temperance Society.

as it is well known to be the practice of many dealers in wine, to add brandy and other articles, to give them more life and a richer color. Indeed, it is stated by a most respectable medical authority, that "for every gallon of pure wine which is sold, there is perhaps a pipe, or fifty times the quantity, of that which is adulterated, and in various manners sophisticated—the whole, without exception, the source of a thousand disorders, and in many instances an active poison imperfectly disguised."*

Narcotic Substances.

Of the narcotic substances commonly used, opium and tobacco contain much the largest quantity of the narcotic principle. I would, therefore, solicit the attention of every student and other intelligent young man, to an examination of the nature, relations, and effects of spirit, wine, opium, and tobacco; in the hope of persuading them all, totally to abstain from their use.

Reasons for discarding all these articles.

I group these articles together, as alike to be rejected, because they agree in being poisonous in their natures; unnecessary to the healthy; incapable of affording nourishment to the body; fascinating to diseased appetite, and destructive to property, health, and life.

Of these articles, however, ardent spirit is preeminent in the work of destruction; and, therefore, abstinence from this, is of preeminent importance. But wine, opium, and tobacco, in all the Protean forms they are made to assume, number not a few among their victims. They ought, therefore, to be all proscribed together.†

Moreover, abstinence from one or more of these articles, while we retain the habit of using any of them, most effectually neutralizes the influence of our example in favor of tem-

* Journal of Health, Vol. I. p. 136.

† See Note A.

perance. "I should prefer to use wine, instead of rum, or whiskey," says an intemperate man; "but wine is too expensive. Give me your wine, and I will abandon spirit." "I am ready to abstain from alcohol," says another, "when you do from tobacco." This appeal must effectually shut the mouth, and destroy the influence, of any one, who will persist in the use of wine or tobacco.

By total abstinence from the alcoholic and narcotic substances above mentioned, I mean an entire disuse of them, except when they are prescribed for bodily disease, by a regular physician, who is not himself addicted to their use. Like most other poisons, they may sometimes be employed advantageously, as medicines; though several medical men of the first standing in our country, have pronounced all of them, except opium, to be unnecessary, even to the physician; since in all cases, as good, or better substitutes may be employed.*

Appeal to students.

The appeal, which I now proceed to make, to every scholar and intelligent young man, urging him to abstain entirely from ardent spirit, wine, opium, and tobacco, is based,

I. UPON THE PRINCIPLES OF PHILOSOPHY.

Classification.

These articles, it is well known, have all a vegetable origin. Alcohol is the principle that gives to ardent spirit and wine their intoxicating power; while the narcotic principle

* "Appeal to the medical profession of the country, and ask them to correct the false idea, which so extensively, I may say so universally prevails, viz. : that ardent spirit is sometimes necessary in the treatment of disease. This opinion has slain its thousands and tens of thousands, &c."—"Appeal then to the medical profession, and they will tell you, every independent, honest, sober member of it, will tell you, that there is no case in which ardent spirit is indispensable for which there is not an adequate substitute."—*Professor Sewall, before the Washington City Temperance Society, p. 20.*

imparts similar properties to opium and tobacco. In popular language, alcohol is classed among the stimulants ; and opium and tobacco among the narcotics ; which are substances, whose ultimate effect upon the animal system, is, to produce torpor and insensibility ; but taken in small quantities, they at first exhilarate. And since alcohol does the same, most medical writers, at the present day, class it among the narcotics.

Composition of vegetable substances.

All vegetable substances consist essentially of three simple principles ; oxygen, carbon, and hydrogen. These, and these only, compose the sweetest as well as the most acid parts of plants : the mildest as well as the most powerful ; the most salutary as well as the most poisonous. Nor can chemistry discover any difference in their composition, except that the elements above mentioned, usually exist in them in different proportions. A knowledge of the chemical constitution of the narcotics under consideration, affords no assistance, therefore, in determining whether they are salutary or injurious. Their physical effects upon animals, however, prove them to be active poisons.

Definition of a Poison.

But what are we to understand by a poison ? Any thing, which being introduced into the animal system, proves detrimental, or fatal, may properly be denominated poisonous ; so that the same substance may be a poison, or not, according to the quantity and circumstances in which it is taken. Thus, a very small quantity of arsenic, and a moderate amount of animal food, may be taken with equal impunity, and sometimes with equal benefit. But a large quantity of the food proves sometimes as fatal to health and life, as a large dose of the arsenic ; and the effects of the two are not much dissimilar. Smallness of quantity and a certain obscurity in the mode of operation, seem included in the physician's definition of the word. But then

stances merely, and therefore not essential. If the effect be rapid and powerful from small quantities, the poison is said to be active. In order to determine, therefore, whether the substances under consideration belong to this class, we have only to compare their effects upon the animal system, with that of articles universally acknowledged to be actively poisonous.

Morphia and Nicotin.

As to Morphia and Nicotin, which are the quintessence of opium and tobacco, there will be no dispute. "A grain and a half of morphia," says Dr. Ure, "taken at three different times, produced such violent symptoms upon three young men of seventeen years of age, that Serturner was alarmed, lest the consequences should have proved fatal." "A drop or two of the chemical oil of tobacco," says a medical writer, "being put upon the tongue of a cat produces violent convulsions and death itself in the space of a minute."*

Opium, Tobacco, and Alcohol, compared with other vegetable Poisons.

Whether opium is used in the form of pills, tinctures, confections, electuaries, or anodynes, such as laudanum, paregoric, &c. ; or whether tobacco is chewed or smoked, or taken as snuff, the virulent poisons above mentioned, which give them their power, are greatly weakened by mixture with other substances. Still, the paw of the lion cannot be entirely hid. A few grains of common opium, indeed, will destroy a person unaccustomed to it; and a large quantity of tobacco has produced the same effect. The habitual use of opium brings on weakness of the digestive organs, and imbecility of mind; a remarkable sottishness in the appearance, and premature dissolution. In those not accustomed to it, tobacco excites nausea, vomiting, dizziness, indigestion, mental dejection, and in short, the whole train of

* Rees's Cyclopedia, Article Tobacco.

nervous complaints. No wonder that James the first, on seeing such effects from this "Nicotian drug," should have sent forth his "Counterblast to Tobacco," and edicts still more powerful, to prevent its introduction into England: that the Pope excommunicated those who used it in the churches: and that the civil power was arrayed against it in Russia, Turkey, and Persia. But tobacco has triumphed; and the only hope of its extirpation from our land, lies in rousing against it a mightier power than any Eastern despot wields; and that is, enlightened public opinion.

Most of the other powerful vegetable poisons, such as henbane, hemlock, thorn apple, prussic acid, deadly nightshade, foxglove, and poison sumach, have an effect on the animal system scarcely to be distinguished from that of morphia and nicotin, or opium and tobacco. The operation of alcohol is also very similar. These poisons produce nausea, vertigo, vomiting, exhilaration of spirits for a time, and subsequent stupor, and even total insensibility: and so does alcohol. They impair the organs of digestion, and may bring on fatuity, palsy, delirium, or apoplexy; and so may alcohol. These effects, indeed, usually follow only in a slight degree from spirit, as it is commonly drunk; because the alcohol is so much diluted. Even spirit of the first proof, contains, as we have seen, only about 50 parts of alcohol in 100; yet seven drams introduced into the stomach of a rabbit, produced death in an hour and a quarter;* and 6 drams proved fatal to a robust dog in three and a half hours.† Nor are the cases rare, in which alcohol, thus diluted, has proved fatal to men. Were the alcohol perfectly pure, or undiluted, these effects would be doubly powerful. Now all the virulent poisons, if mixed with other substances, so as to be less concentrated, may be used for a long time, even habitually, without seeming to produce any very injurious effects. A horse may take a dram of arsenic daily and

* Rees's Cyclop. article Poison.

† Nancreddi's Abridgment of Orfila on Poison.

continue to thrive ; and a very small quantity seems not to affect a man. In short, there is so close a resemblance between the operation of alcohol and most of the powerful vegetable poisons, that to regard the latter as poisonous, and not the former, would be highly unphilosophical. Accordingly, the best medical writers of the present day, do class alcohol among the poisons, as well as opium and tobacco.

Physicians alone should administer these substances.

It is surely reasonable to infer from hence, that these substances must be very dangerous, when employed as articles of luxury or diet ; or when administered as medicines, except under the direction of the regular physician. He may use them, (especially opium) in many cases, perhaps, with advantage. For the same substance, that is deadly poison to the constitution in health, may be eminently salutary in sickness. And a similar difference exists in different constitutions ; which is the reason that some men are worn out much sooner than others by the use of stimulants and narcotics. But the physician is the only proper person to judge of the cases and the quantity, in which these substances ought to be used. For every man to take the business into his own hands, without any knowledge of medicine, and to undertake to determine when, and how much, of ardent spirit, wine, opium and tobacco, are necessary for him, is just as absurd and as dangerous as if he were to prescribe and deal out arsenic, or corrosive sublimate, or calomel. Nor can the man in health do it, to gratify his appetite, without certain injury to his constitution. He may not perceive injurious effects for years, on account of the immediate exhilaration ; but complicated chronic complaints will, after a time, creep upon him, making life a burden, and ending in premature dissolution ; though he may impute his sufferings to other causes, and even die, folded with unsuspecting confidence, in the arms of his murderer.

Opium ; when used injudiciously.

There can be no doubt that opium, in the hands of a judicious physician, is a most valuable medicine ; nor any more doubt, that when used habitually, or even occasionally, without medical advice, it is almost uniformly and highly injurious. We have, indeed, few genuine opium eaters among us ; but the laudanum and paregoric phial, are considered almost indispensable in every family. Nor does the mother hesitate, night after night, to quell the cries of her infant, by administering increasing doses of these poisons, and thus almost infallibly to ruin its constitution. The nervous invalid also, resorts to this remedy for allaying the irritation of his system and procuring repose. And more especially, does the delicate votary of fashionable life, make this her nightly resort, on returning at midnight from the assembly, the dance, or the tea party, “ all soul within and all nerve without.” And nearly all these persons, numerous as they have become among us, are probably ignorant that they are thus destroying themselves and their children. But if they will not listen to the following awakening warning, coming from high medical authority, they are irretrievably ruined.

Warning against the use of Opium.

“ However repugnant to our feelings as rational beings may be the vice of drunkenness, it is not more hurtful in its effects than the practice of taking laudanum”—“ this is not the language of exaggeration or speculative fear. We speak from a full knowledge of the facts. We repeat it—the person who gets into the habit for weeks, (he may not reach to months, or if he pass these, his years will be but few and miserable,) of daily measuring out to himself his drops of laudanum, or his pills of opium, or the like deleterious substance, call it tincture, solution, mixture, potion, what you will, is destroying himself as surely as if he were swallowing arsenic, or had the pistol applied to his head. The fire of disease may for a while be concealed—he may smile in-

credulous at our prediction; but the hour of retribution will come, and the consequences will be terrible.”*

Medical Testimony against Tobacco.

Not less decided is the testimony of physicians against the use of tobacco in every form. “Did the least benefit result to the system from its habitual use,” says the same authority, “there would then be some reason why, with all its loathsomeness of taste and smell, it should have become so general a favorite. But we know, on the contrary, that all who habituate themselves to its use, sooner or later experience its noxious power. Tobacco is in fact an absolute poison. A very moderate quantity introduced into the system—even applying the moistened leaves over the stomach—has been known very suddenly to extinguish life.” “In whatever form it may be employed, a portion of the active principles of the tobacco, mixed with the saliva, invariably finds its way to the stomach, and disturbs or impairs the functions of that organ. Hence, most, if not all, of those who are accustomed to the use of tobacco, labor under dyspeptic symptoms. They experience, at intervals, a want of appetite—nausea—inordinate thirst—vertigo—pains and distensions of the stomach—disagreeable sleep, and are more or less emaciated.”

How very pernicious, then, must be that filthy practice, to which some are given, of swallowing down purposely, a quantity of tobacco spittle after meals, to assist digestion! Or the still more degrading habit, of chewing snuff; to which it is said, not a few delicate ladies are addicted! Alas, to what depths of degradation will brutal appetite bow down the immortal mind!

Tobacco rarely, if ever, useful.

The common opinion, that tobacco, in some of its forms, is serviceable for headaches, weak eyes, the preservation of the teeth, purifying the breath, cold and watery stomachs,

* Journal of Health, Vol. I. p. 162, 163.

&c. is mere delusion. "At first had recourse to, by some, for the relief of headache, or disordered eyes,—snuff, when long continued," says a medical writer, "brings on those very evils it was intended to remove." And here I am happy in having permission to give the opinion of one of the ablest physicians in Massachusetts, as to the use of tobacco in another form; "The chewing of tobacco," says he, "is not necessary or useful in any case that I know of: and I have abundant evidence to satisfy me that its use may be discontinued without pernicious consequences. The common belief, that it is beneficial to the teeth, is, I apprehend, entirely erroneous. On the contrary, by poisoning and relaxing the vessels of the gums, it may impair the healthy condition of the vessels belonging to the membranes of the socket, with the condition of which, the state of the tooth is closely connected."*

The practice of smoking is alike deleterious. If it were ever useful as a medicine, the habit, by deadening the nervous sensibility, must prevent every good effect, and then it becomes injurious only: Indeed, "even in persons much accustomed to it, it may be carried so far as to prove a mortal poison."†

The counsel given by the Journal of Health, is, therefore, in perfect accordance with the principles of medical philosophy. "Our advice is, to desist, immediately and entirely, from the use of tobacco in every form, and in any quantity, however small."—"A reform of this, like of all evil habits, whether of smoking, chewing, drinking, and other vicious indulgencies, to be efficacious, must be entire, and complete, from the very moment when the person is convinced, either by his fears or his reason, of its pernicious tendency and operation."

Is Alcohol useful or necessary?

Ardent spirit and wine are considered very serviceable,

* Letter from Dr. John C. Warren of Boston, March, 1830.

† Ree's Cyc. article Tobacco.

by multitudes, in several circumstances. Let us see whether this opinion is correct.

Is alcohol necessary for the farmer, to sustain him under protracted labour and fatigue? The experiment has been fairly and repeatedly tried, by many of the most hard-working men in the country; and their testimony is, that spirit is decidedly injurious, by increasing the very evils it is supposed to remove; notwithstanding the temporary exhilaration which it produces.

Is it necessary for the soldier? Says Dr. Jackson, a distinguished surgeon in the British army, "my health has been tried in all ways; and by the aids of temperance and hard work, I have worn out two armies, in two wars, and probably could wear out another before my period of old age arrives. I eat no animal food, drink no wine or malt liquor, or spirits of any kind; I wear no flannel; and neither regard wind nor rain, heat nor cold, when business is in the way."*

A general officer in the British service thus testified also, more than thirty years ago. "But above all, let every one who values his health, avoid drinking spirits when heated; that is adding fuel to the fire, and is apt to produce the most dangerous inflammatory complaints." "Not a more dangerous error exists, than the notion that the habitual use of spirituous liquors prevents the effects of cold. On the contrary, the truth is, that those who drink most frequently of them are soonest affected by severe weather. The daily use of these liquors tends greatly to emaciate and waste the strength of the body."†

The Roman soldiers, who conquered the world, and bore a weight of armour that would almost crush a modern warrior, drank nothing stronger than vinegar and water.‡

* *Sure Methods of Improving Health, &c.* p. 79.

† *Military Mentor*, vol. 1. p. 24—25.

‡ "I stand here a living monument of the utter uselessness of ardent spirits, having never tasted them; and yet I have endured my full proportion of fatigue and exposure, in peace and war."

Gov. Cass's Address before the Detroit Temperance Society.

Are alcoholic mixtures necessary for sailors? In 1619, the crew of a Danish ship, of sixty men, well supplied with provisions and ardent spirit, attempted to pass the winter in Hudson's Bay: but fifty eight of them died before spring. An English crew of twenty two men, however, destitute of ardent spirit, and obliged to be almost constantly exposed to the cold, wintered in the same Bay, and only two of them died. Eight Englishmen did the same, in like circumstances, and all returned to England: and four Russians, left without spirit or provisions in Spitzbergen, lived there six years and afterwards returned home. In accordance with these facts, it is found, that when sailors are exposed in high latitudes to cold and wet, those endure best, and live longest, who drink no spirit.*

Is spirit necessary for slaves, who are exposed to a summer's sun in warm climates? "On three contiguous estates," in the island of Cuba, says Dr. Abbot, "of more than four hundred slaves, has been made with fine success, the experiment of a strict exclusion of ardent spirits, at all seasons of the year. The success has far exceeded his (the proprietor's) most sanguine hopes. Peace and quietness, and contentment, reign among the negroes; creoles are reared in much greater numbers than formerly; the estates are in the neatest and highest state of cultivation, and order and discipline are maintained with very little correction, and the mildest means."†

* *Extract from the New York Mercury of March 31st, 1830.* On Thursday night a very fair experiment was made on the effect of spirituous liquors to sustain men under fatigue. The vessel was on Barnegat Shoals when the storm came on, and through the night was in great peril. All hands drank spirit except one man sixty years of age. He stood at the helm from five o'clock in the evening of Thursday, until ten o'clock on Friday, the sea breaking upon him constantly, when he came off in good condition—All the men who drank spirits had given out several hours before."—*See also, Rees's Cyclop. Article Cold.*

† Abbot's Letters from Cuba.

The men in Europe, who are trained to become pugilists, and to whom it is the object to give the greatest strength and most perfect health, are not allowed ardent spirit at all; and the best trainers prohibit wine.

Now if spirit and wine are not only unnecessary, but decidedly injurious, in the extreme cases that have been pointed out, surely they cannot be beneficial to the student, who is subject to none of these exposures. Some, however, will say, that their moderate use by such persons greatly assists digestion.

Does alcohol promote digestion?

"It is a common enough belief," says an European medical writer, "that a dram after meals promotes digestion. But there cannot be a more erroneous opinion. Those, indeed, who have acquired this pernicious habit, may find, that without their usual stimulus, digestion goes tardily on. But this only bespeaks the infirm and diseased state to which the stomach has been reduced. For the digestion of the healthy and unaccustomed, is sure to be interrupted and retarded by a dram. Common observation might satisfy us of this. But the question has been submitted to direct experiment by Dr. Beddoes; and he found that the animals to whom spirits had been given along with their food, had digested nearly one half less, than other similar animals from whom this stimulus had been withheld."*

Physicians were, indeed, formerly in the habit of recommending a little brandy and water, or wine, to those affected with the dyspepsy. But the opinion of the ablest of them now, at least in this country, is, that such tonics, in most cases of this sort, give only a transient and deceitful relief;† and in fact tend to exhaust the invalid's scanty strength. Indeed, they maintain that "permanent strength is never given

* Edinburgh Encyclopedia, Article Aliment, vol. 1. p. 498.

† For the opinion of French physicians on the effects of tonics and stimulants in Dyspepsy, see Note N.

by stimulating medicines.”* A distinguished scholar in our country, who has been a dyspeptic for “some thirty years,” says, “that the worst of all tonics is ardent spirit. For a dyspeptic, however, wines of all kinds are a deadly poison; even worse than brandy, but for different reasons.”

Does alcohol guard against contagion?

Many suppose that spirit, wine, and tobacco, possess a wonderful efficacy in resisting contagion: and hence they are freely used by those in attendance upon the sick. But their only value in this respect, appears to consist, in inspiring confidence in those who employ them; and this is a state of mind, more favorable than that of fear, for repelling contagion. But on the other hand, the insensibility, produced by these substances, is a far more prolific source of danger; so that the man under their influence, is peculiarly exposed to contract disease. A single phial of the chloride of lime, or soda, (substances now easily obtained in our country,) applied occasionally to the nose in the rooms of the sick, affords more security against contagion, than all the alcohol and all the wine, and all the tobacco, and all the aromatics in the land. Let a man furnish himself with this safeguard, let him see that the rooms of the sick are well ventilated, and if he please, fumigated with the chlorides, and let him not go fasting to visit them, and he has taken the best methods known, for avoiding the contagion of dangerous maladies.

How alcohol does operate upon the animal system.

It would be passing by a most important part of the philosophy of this subject, not to endeavour to give a true account of the operation of alcohol upon the animal system. Water, milk, and solid food, strengthen that system, by being actually converted into its substance. In the stomach

*See Dr. Hales' able Essay in the Journal of Humanity for Nov. 18th, 1829, &c.

they are changed into a pulpy mass, called chyme; thence they pass into the the bowels, where their nutritious portions become chyle; and this, being taken up by the lacteals, passes into the blood: which, in its circulation, conveys the chyle to every part of the system that needs to have its wastes repaired. Does alcohol operate in the same manner to invigorate the bodily powers? In other words, does it impart any nourishment to the system?

That the water, with which alcohol, when drunk, is diluted, might be nutritious, if it were to pass into the blood, cannot be doubted. Usually, however, it does not go into the blood; but is thrown off by those organs, "which are set as waste gates to the system," because the system is already supplied with fluid enough. This excess of liquid must weaken the digestive power of the stomach over nutritious substances, by too much diluting the gastric juice; while the alcohol will have a similar debilitating effect, by exhausting the stomach's excitability. Moreover, it is now ascertained, that alcohol, frequently, at least, passes unchanged into the blood;* so that if you distil a drunkard's blood, you will obtain pure alcohol: indeed, it has been found in the ventricles of the brain.† Now alcohol in the

* M. Majendie tied up the passage from the stomach to the intestines in a dog, and then injected alcohol into the stomach. In half an hour afterwards, the chyle was examined and contained no alcohol: but its odour was very sensible in the blood, which yielded it on distillation. Hence, alcohol may pass in some mysterious manner, and through some hitherto undiscovered passage, directly from the stomach into the blood—perhaps through the agency of galvanism. May it not pass into any other part of the system in the same manner, and corrupt the various secretions; and when a man is thus filled with alcohol, will he not be liable to take fire; and will not this explain the spontaneous combustion of drunkards, which in several instances has undoubtedly taken place.—Paris on Diet, p. 46.*

† Journal of Humanity, Nov. 18th, 1829. See also Mussey's Address, p. 5.

* See Note T.

blood cannot nourish any part of the animal system, because no part of that system is composed of alcohol; and there is no reason to suppose that this substance is decomposed after getting into the circulation. All the organs, as an ingenious medical writer remarks, '*decline*' this alcohol, as the blood conveys it round to them. "The head says, 'my nerves are calmer, my thoughts are clearer, without it,—I beg to be excused:' the heart says, 'my motions are more regular, my affections are purer, without it,—I have no occasion for it:' the limbs say, 'our strength is firmer, our vigor is more durable without it,—we need it not:' all say, 'it cannot nourish us, it cannot sustain us,—we will none of it:' and at length rejected by all, except by those organs whose peculiar office it is to convey out of the blood, its refuse and worthless parts, it is taken up by them and thrown out of the body."*

No nourishment in alcohol! How can this be, when it is extracted from molasses, grain, and other substances confessedly nutritious, and seems to constitute their essence? And how is it, that intemperate men not only live, but grow corpulent, upon less solid food than the temperate?

How can it be expected, I reply, that a stomach so debilitated as the drunkard's, so worn out by constant excitement, should be able to digest as much food as that of the temperate man? And who can mistake the bloatedness of a diseased body, for firm and robust muscle? As to the origin of alcohol, it is a mistaken opinion, that it exists naturally and originally in any kind of fruit, or grain. For it always results from the fermentation, or incipient decomposition, of those substances that contain, or will produce, sugar. Before any part of fruit or grain can become alcohol, its nature must be as entirely changed, as that of manure, before it can become the stalk, or flower, or fruit, of a plant.

* Journal of Humanity, Dec. 9th. 1829.

Alcohol not natural to cider, grain, &c.

Since spirit is obtained from grain and other nutritious substances, some have inferred, that God intended it for drink, as much as he intended flour for food. But the alcohol does not exist naturally in the grain, in much quantity, without the artificial processes of fermentation and distillation. True, the laws of chemical affinity, which God has established, operate in the production of alcohol, by these processes. And so they operate in the production of the most hateful and dangerous gases, resulting from the decomposition of vegetable and animal substances: and if this fact proves that alcohol is to be used for drink, it proves equally, that these gases are to be used in respiration.

Some too, cannot conceive how alcohol should be poisonous, since the substances from which it is produced, are so eminently salutary. But if alcohol be an entirely new substance, formed out of the ruins of the grain, cider, &c. why should it be thought any more strange, that it should be a poison, than that poisonous gases should result from the decomposition of the sweetest and most nutritious vegetable and animal substances.

How Alcohol produces strength.

But if alcohol afford no nourishment, how can it suddenly inspire a man with such surprising vigor? I answer, by its action on the nervous system, whereby the latent energies of the constitution are roused into action. God has given to the animal constitution, a capacity to exert an amount of physical power, much superior to what is necessary for ordinary occasions. The key to this store-house of strength is the excitability of the system; and this is put into requisition by the action of alcohol. Alcohol does not create any new physical power; it merely rouses into action that which already exists in the constitution.

Alcohol frequently exhausts the system.

If such be a true account of the operation of alcohol, and I might appeal to the highest medical authorities for its

correctness, it is very obvious that this substance must prematurely exhaust the system. That secret energy, which nature has in reserve for seasons of great bodily and mental effort, for extremes of heat and cold, hunger, thirst, and disease, is thus prodigally and irretrievably wasted. It is, as if a powerful prince should unlock the magazines collected by his predecessors, against a time of need, and wantonly expend them upon his lusts; while powerful enemies were hovering along his frontiers.

And exposes it to disease.

The friends of temperance are very frequently urged to point out any bad effects, resulting to a man's constitution, from a very moderate and prudent use of ardent spirit, or wine. In the statement just made, we have the answer. The premature exhaustion which is thus infallibly produced, in a greater or less degree, renders the individual peculiarly liable to the attacks of violent and dangerous disorders. He is seized with fever, or dropsy, or apoplexy; but never suspects that his prudent use of spirit, or wine, is the cause. But his physician understands the matter; though prudence may prevent his even hinting his suspicions.

Nor is this all. This premature exhaustion renders the system far less able to resist disease, than if it had been subjected to no unnatural excitement. Hence the most moderate drinker, is far more apt to sink under his disorder, than he, who is rigidly temperate. Listen to the opinion of one of the most respectable medical societies in our land, on this point. "Beyond comparison," say they, "greater is the risk of life undergone in nearly all diseases of whatever description, when they occur in those unfortunate men, who have been previously disordered by these poisons."*

Influence of Alcohol upon the Intellect.

Philosophy urges total abstinence upon literary men, on

* Report of the Committee of the Philadelphia Medical Society, Jan. 24, 1829.

the ground also, that spirit, wine, opium, and tobacco, exert a pernicious influence upon the intellect. They tend directly to debilitate the digestive organs; and we cannot take a more effectual course to cloud the understanding, weaken the memory, unfix the attention, and confuse all the mental operations, than by thus entailing upon ourselves the whole hateful train of nervous maladies. These can bow down to the earth an intellect of giant strength, and make it grind in bondage, year after year, like Samson, shorn of his locks, and deprived of his vision. Would to God, there were not so many melancholy illustrations of this position in the history of drunkenness in our land. Alas, intemperance seems to select the brightest intellects as her victims, that she may show her omnipotence by crushing them in her iron embrace.

But to pass by the sot and the drunkard; I maintain that the unnatural excitement, which a moderate and occasional use of alcoholic and narcotic substances produces, is unfavorable to clearness and vigor in mental operations. The dizziness of the brain, and exhilaration accompanying their use, especially that of alcohol, what are they, but incipient delirium, and the premonitions of apoplexy. The mental operations may indeed seem to be quickened; but to what purpose is it, that the machine is furiously running and buzzing, after the balance wheel is taken off!

From such a severe denunciation as this, however, must not the mild and healthful exhilaration of an occasional glass of wine be exempted? Have not literary men, and even some physicians of early times, declared that "wine inspires a genius favorable to the poet?"

True, I answer, there has been a deep delusion on this, as well as on other important subjects: Armstrong, in his generally excellent poem, on the Art of Preserving Health, even advises men "to learn to revel." But a more modern poet, of no mean name, could say,

"We never drew our inspiration from the flask."*

* Cumberland's Retrospection.

And more modern, and not less able physicians too, have testified as follows: "My whole experience assures me, that wine is no friend to vigor or activity of mind. It whirls the fancy beyond the judgment and leaves the body and soul in a state of listless indolence and sloth. The man that on arduous occasions is to trust to his own judgment, must preserve an equilibrium of mind, alike proof against contingences as internal passions. He must be prompt in his decisions; bold in enterprise; fruitful in resources; patient under expectation; not elated with success; or depressed with disappointment. But if his spirits are of that standard as to need a *fillip* from wine, he will never conceive or execute any thing magnanimous or grand. In a survey of my whole acquaintance and friends, I find that water drinkers possess the most equal tempers and cheerful dispositions."*

"The depths of philosophy, and the elevations of poetry," says the Journal of Health, "are most felicitiously explored by those whose minds are allowed to exert their powerful faculties, unclouded by the muddy vapors of wine or spirit."

Influence of alcohol upon the moral powers.

Finally: Philosophy makes her appeal on this subject, on the ground that alcoholic and narcotic substances, blunt, and ultimately almost destroy, the natural affections, and moral sensibilities. Philosophy well knows, because she has seen the experiment tried, and that too by her own mistaken votaries, that even to weaken these affections and sensibilities, is to undermine the pillars on which society rests; and to destroy them, is to knock out the key stone of the arch, that sustains all which is beautiful and valuable among men. Experience, too, the handmaid of philosophy, points us to the victims of Intemperance, that meet us at every corner; and bids us see, with our own eyes, the desolating

* Trotter's Essay on Intemperance, p. 170.

influence of alcohol. These men and women were once the ornament and hope of society. Once, they were the joy and the pride of parents and friends; but now, are they their shame and anguish. Once, their bosoms swelled with honorable feeling, and virtuous enterprise; but now, they are past shame, past effort, except to complete the work of self-immolation. Once, some of them were husbands and wives: in whose bosoms there glowed a tender, pure, and unchanging conjugal affection; and they had children clustering around them, affectionate and beloved, whose ears never heard a sweeter sound, than the name of father or mother; and their home, O, how sweet a paradise it was, for such a world as this! but now, their bloodshot eyes look with stupid unconcern, or savage glare, upon the partners, whose bosoms they have made desolate, and upon the children, whom they have covered with rags and infamy; and their voices now sound like the yelling of fiends, in that home, once so sweet, now almost converted into an abode of fiends. Once, they had consciences, quick to discern, abhor, and shun every thing immoral and base; but their conscience now, O, it is dead and buried, never to awake till the judgment day.

Would the temperate and educated youth of our land escape this horrible desolation? Total abstinence is the only sure wall of defence, which they can build up around them. Every other rampart has been demolished by the insidious sappings of the foe. Trust in no other, then, if you would escape the moral ruin, which, sooner or later, follows in the track, even of moderate indulgence.

A substitute for Alcohol.

But what substitute has Philosophy to offer, when she thus demands the abandonment of stimulants and narcotics? God has provided one: a most safe, most salutary, and most abundant substitute.* Most mercifully is it scattered in purity

* Note U.

and profusion, all around us : gushing forth, clear as crystal, from the base of every hillock in our favoured land. Its name is *Pure Water* : though it sometimes assumes the name of milk and water, vinegar and water, sweetened water, or small beer, without losing its essential and characteristic excellencies. I know that so simple a beverage is loathed by a stomach that has lost its natural tone, and has become educated to the use of stimulants and narcotics. But such a stomach may be again learnt to relish it : and it is now too late to maintain, that water needs the admixture of any other substance, to render it, of all drinks, the most promotive of health, strength, longevity, and serenity of mind. Let us hear a few testimonies on this subject, from medical men.

Testimonies in favour of Water.

Cheyne, a distinguished physician, who wrote more than a century ago, and who had himself experienced incalculable benefits from the use of water, describes its value with great enthusiasm. "The benefits," says he, "a person who desires nothing but a clear head, and strong intellectual faculties, would reap by drinking nothing but water (tepid or cold as the season is,) while he is yet young and tolerably healthy, well educated and of a sober honest disposition, are innumerable : As first, that he would live probably till towards an hundred years of age, &c. Secondly, that he would constantly enjoy a clear head, calm, at least governable passions ; a facility in intellectual applications, and the acquisition of virtue, &c. Thirdly, he would thereby be secured against all the great, atrocious, and frightful distempers ; as melancholy, lowness of spirits, wrong-headedness, madness, apoplexies, suffocations, fevers of all kinds, pestilences, pleurisies, &c."*

"If there is in nature a remedy, which deserves the name of universal," says Hoffman, a celebrated German physician, who lived nearly two centuries ago, "it is, in my opinion, pure water."

* Essay on Regimen and Diet, p. 26.

“Water,” says the Edinburgh Encyclopedia, “is the natural drink of man, and indeed, of all animals. It is not only the safest and best drink, but however it may be disguised, water is perhaps the only fluid which can answer all the purposes for which drink is required.”

“There can be no question,” says Dr. James Johnson of London, “that water is the best and the only drink which nature has designed for man; and there is as little doubt but that every person might gradually, or even pretty quickly, accustom himself to this aqueous beverage.”—“The water drinker glides tranquilly through life, without much exhilaration or depression, and escapes many diseases to which he would otherwise be subject. The wine drinker experiences short, but vivid periods of rapture, and long intervals of gloom; he is also more subject to disease. The balance of enjoyment then turns decidedly in favour of the water drinker, leaving out his temporal prosperity and future anticipations; and the nearer we keep to his regimen, the happier we shall be.”*

“I have known,” says Dr. Rush, “many instances of persons who have followed the most laborious employments for many years in the open air, and in warm and cold weather, who never drank any thing but water, and enjoyed uninterrupted good health.”†

Those sudden deaths, which are not unfrequent from drinking cold water, in very hot weather, rarely if ever take place, except in persons of intemperate habits.‡

“In physical strength, says the Journal of Health, in the capability of enduring labour and fatigue, in the vigor and clearness of the intellectual powers, the individuals whose drink is confined entirely to water, far exceed those who substitute for the pure element, distilled or fermented liquors.”

* Influence of Civic Life, Sedentary Habits, and Intellectual Refinement on Human Health, &c. p. 37 and 39.

† Medical Enquiries, vol. I. p. 161.

‡ Note V.

“ Would the strong man preserve his strength, and the fair woman her beauty, water will be their beverage, their cordial, their restorative. Is the constitution broken down in drunken bouts, and gluttonous feasting, to be renovated ; water—water alone, unmixed, unspoiled, must be the grand anti-dyspeptic draught. If cramps and pain torment, or wakefulness cheat the wearied spirit of its repose, not all the essences of peppermint or mustard for the former, or all the sedatives of laudanum, or black drops, or hops for the latter, will be so composing for the time, and unattended by after suffering, as a tumbler full or two of hot water. The nervous lady who refuses to take adequate exercise during the day, and drinks her strong green tea in the evening, may consult her physician, if she be partial to having a listener to her tale of woe ; but if she desire to rest well and keep out of the hands of quacks, and spare the nerves of her regular medical adviser, who really wishes her well, she must dilute her tea, take longer walks, and in place of recourse to the laudanum vial, try a tumbler full of hot water at bed time. The poor hypochondriac must not hope for easier digestion and a greater flow of spirits by a little wine or other bitters before dinner, and a little wine or brandy and water at, and after this meal. He may as well hope to breathe freer by having his throat a little compressed by a tight band just before he takes a walk, and again a little squeezed immediately after his return. His draughts from the fountain of Hygeia must be in the shape of pure water from the nearest spring or cistern.”

Other Substitutes.

I might add to this evidence, the testimony of almost every valuable medical writer since the days of Hippocrates ; all agreeing in the opinion, that *water is the natural and the best drink for man* : and that consequently, “ water—water unmixed, unspoiled,” is the best substitute for stimulants and narcotics that can be found. And if the *best*, why should the young man, the temperate man, the scholar,

enquire for any other? Malt liquors, cider, coffee, tea, and the like, have, indeed, been proposed as substitutes. True, he does well, who uses tea or coffee for brandy, and cider for wine: but he does far better, who in early life brings himself at once to nature's beverage alone: For ale, cider, coffee, and tea, owe their exhilarating properties to the same alcoholic and narcotic principles which exist more abundantly in spirit, wine, opium and tobacco: Hence the former will tend to keep alive an appetite for the latter; and whenever an occasion offers, it will be much easier to make the transition to drunkenness, than it would be for the water drinker, who has learned to live without any unnatural stimulus; and whose stomach, therefore, craves none. Hence, then, though I should consider it extremely injudicious, and even quixotic, for any Temperance Society to require total abstinence from these milder stimulants, I should regard it as highly expedient and desirable, for every young man, for every scholar especially, to refrain from them entirely. Then will he probably be able, fifty years hence, to say:—

“ Though I look old, yet am I strong and lusty ;
 For in my youth I never did apply
 Hot and rebellious liquors in my blood ;
 Nor did not, with unbashful forehead, woo
 The means of weakness and debility ;
 Therefore my age is as a lusty winter,
 Frosty but kindly.”*

I make my appeal,

II. ON THE GROUND OF SELF-INTEREST AND PRUDENCE.

I have already shown, that a regard to bodily and mental health, demands the entire abandonment of alcoholic and narcotic substances. But there are other considerations, that urge a man, from mere self love, to total abstinence.

* Note W.

Expense of these Articles.

In the first place, the use of these articles is expensive. Those can best appreciate this argument, who, as heads of families, have been called for several years to settle their alcoholic and narcotic bills, with the merchant. It is not that the price of a gallon of rum, or brandy, or wine; or of a pound of snuff, or tobacco, is a heavy tax upon a man's income; but the endless repetition of these purchases, which custom has heretofore demanded, changes the arithmetical series in the calculation, into a geometrical one.

Their influence on a man's reputation.

In the second place, this course will secure a man more respect and influence in society, than he could attain, while using these substances in the greatest moderation. Even habitual drinkers will respect him more, although his example may exasperate them, for taking the course which their consciences approve. And surely the temperate and respectable part of society, cannot but have a higher regard for him, who abandons every idol of appetite, than for him, who, giving up perhaps his ardent spirit, still clings to wine or tobacco. For they well know, that it is no difficult matter to leave one idol, if several others of the same general nature are left to us, on which to concentrate our affections and worship.

Such a blaze of light now illuminates every man's path on this subject, and so powerfully do a thousand motives urge to total abstinence, at least from alcohol, that the intelligent and virtuous part of society are suspicious, that the man, who refuses, has a secret attachment to the poison. Hence they dare not trust important interests in his hands; but will commit them rather to the decidedly temperate. Such a suspicion may seem most uncharitable to those who fall under it: Still, so long as in nine cases out of ten, the final result shows it to have been well founded, you cannot prevent men from indulging it.

Inconvenience of using spirit.

In the third place, to use alcoholic mixtures, at the present day, even in small quantities, occasions more inconvenience and suffering to a respectable man, in many parts of the country, than total abstinence. In order to do it, he must breast the current of public opinion, which sets so strongly in favor of temperance. Even to replenish from time to time his stores of rum, brandy, and wines, is no easy task. To go openly to the retailers for this purpose, is to expose himself to the mortification of meeting the eye, or the reproof, of some respectable friend of abstinence. To go privately, is to be haunted continually with the fear of being discovered. Still more difficult is it to find a time and place to drink. To do it publicly, is to be reckoned among the intemperate. To do it at home, is to excite the constant fear, lest some visitor should perceive the alcoholic odour of the breath. To take peppermint essence, or cinnamon, or sweet flag, as some do, affords, indeed, a little security. But what if the effluvia of the spirit should at any time predominate over the aromatics ! Worse than all this, the man finds, that so long as he refuses to practice total abstinence, the whole clan of drunkards around him appeal triumphantly to his example ; seem to feel and treat him as if he were a brother, engaged in a common cause with them ; and lean on him as a support against the reproaches of conscience and the contempt of the world. Now he detests drunkards : and it is most mortifying to be thus dragged into their communion ; to be saluted by them as a leader and protector ; and then to find among the temperate and respectable, a half expressed suspicion, that he may not, in fact, be so far removed from these drunkards as he supposes. But the sure way to avoid all this mortification, insult, and anxiety, is, while young, to come up to the altar of temperance, and swear eternal enmity to alcohol.

Students in peculiar danger.

In the fourth place, literary men, by indulging in a moderate and occasional use of alcohol, expose themselves, even peculiarly, to personal intemperance.

Look at the men, who for the last thirty or forty years, have successively gone from our seats of learning, to mingle with the community; and enquire into their characters. Some of them occupy high and important stations of trust and honor in our national and state governments: some sit in our courts of justice, as judges and expounders of the law: some are advocates in those same courts, to plead the cause of the injured and oppressed: some have devoted their lives to general literature, or to the oversight of extensive mercantile, manufacturing, or agricultural establishments: some have become physicians, and some ministers of the Gospel: and among all these descriptions of character, some, alas, not a few, are intemperate.

Now does any student feel as if he were in no danger, surrounded as he is, by so many wrecks? If splendid abilities, or correct morality, or hopeful piety, or faithful warnings, or strong resolutions, or fervent prayers, could have saved them, these had not fallen: for it was not merely the stupid, the idle, and the vicious, that were ruined. But they were taught that they might safely linger about the dragon's den, and admire his sparkling eyes, and party-coloured scales, and listen to his siren voice. And ere they were aware of it, his coils were twisted around them, crushing the powers of life; and the poison of his fangs was rankling in their veins. As certain as like causes produce like effects, the youth of our literary institutions, who are coming forward to occupy stations of authority and influence, will fall, in equal numbers, into the folds of the same monster, unless they use some weapon of defence which their predecessors never employed. That weapon, of heavenly temper, is total abstinence. Oh, it is madness to rush on, unprotected by this weapon, to that deadly spot, where the mightiest lie slain by thousands.

Let the student recollect, that scarcely any other man in society is so peculiarly exposed to intemperance as himself. In the first place, it is very natural to seek relief, in the stimulus of wine, or ardent spirit, from the debility consequent upon vigorous mental efforts ; although the constitution is then in a very bad state to resist their influence. In the second place, literary men are peculiarly subject to nervous maladies ; and the depression of spirits accompanying them, receives a temporary relief, though an ultimate aggravation, from stimulants ; and the result of using them, most commonly, is confirmed intemperance. In the third place, the delicacy of constitution possessed by literary men is sooner overcome by alcoholic poisons, than the coarser and more robust stamina of the active and laboring classes. In the fourth place, men of the learned professions, the physician, the lawyer, and the clergyman, are more exposed than others, to those special occasions when it is customary to use alcohol. Civil courts of every grade, furnish one of these occasions ; and rarely are the temptations stronger, or the defences weaker. Among the sick, alcohol is thought to be essential ; and there the physician is tempted to make up by stimulants, for the fatigue and sleeplessness of the preceding night ; and there the clergyman guards himself, as he supposes, against contagion, by the same means : and thus in spite of the loud warnings, uttered by the science of the one and the religion of the other, they both become drunkards. Finally, if I mistake not, literary men—perhaps I ought to say, all persons of sedentary habits—are more addicted than others, to smoking and chewing tobacco : and it is well known that tobacco, by rendering the taste of water insipid, inclines a person strongly to resort to ardent spirit. This is illustrated in the “Confession of a Drunkard,” who undertook to substitute tobacco for alcohol. “The devil,” says he, “could not have devised a more subtle trap to retake a backsliding penitent. The transition from gulping down draughts of liquid fire, to puffing out innocuous blasts of dry smoke, was

so like cheating him. But he is too hard for us ; when we think to set off a new failing against an old infirmity, 'tis odds but he puts the trick upon us, of two for one. That (comparatively) white devil of tobacco, brought with him in the end seven worse than himself."

"It were impertinent to carry the reader through all the processes by which, from smoking at first with malt liquor, I took my degrees through thin wines, through stronger wine and water, through small punch, to those juggling compositions, which, under the name of mixed liquors, slur a great deal of brandy or other poison under less and less water continually, until they come next to none, and none at all. But it is hateful to disclose the secrets of my Tartarus."*

Oh, let the student turn his eye backward, and look at the almost countless wrecks of talent and genius, that are strewed over the ocean of intemperance. Select a single example, if you will—say that of Burns—and ask yourself, whether you would desire even his glory for your name, if it must also be loaded with his infamy ! Let his epitaph, written by himself, sink deep into the memory of every youthful votary of science.

* An almost infallible attendant upon brandy, wine, and tobacco, is gambling ; and most cordially do I join in the earnest wish of an able friend to temperance ; "O, that every society for the suppression of intemperance, would shut out also the vice of gambling—would banish it entirely ! Little gambling is like little drinking ; one degree leads on to another. All great vices have little beginnings, and these little beginnings are what we are most cautiously to avoid. As these two vices then are so intimately connected while living, separate them not in death, bury them both in the same grave. And bury them deep too—pile high the earth upon them, that their noisome presence may never cloud the pure light of virtue."—*Sweetser's Address before the young men of Burlington, March 24th 1830. p. 8.*

"Though every lover of tobacco is not a slave to rum, yet every drunkard is a slave to tobacco ; and this is indirect evidence that the habits are in a measure associated,"—*Dr. Mr Allister's Dissertation on Tobacco, p. 23.*

The poor inhabitant below
 Was quick to learn and wise to know,
 And keenly felt the friendly glow
 And softer flame ;
But thoughtless follies laid him low
 And stain'd his name.

Reader attend ! Whether thy soul
 Soar fancy's heights, beyond the pole,
 Or darkling grubs this earthly hole,
 In low pursuit ;
Know, prudent, cautious, self control
 Is wisdom's root.

I make my appeal,

III. ON THE GROUND OF PATRIOTISM.

Patriotism requires that the man, who loves his country, should shrink from no personal sacrifice, if he can thereby arrest some great national evil. How great an evil in this country is the use of alcoholic and narcotic substances, will appear from a few facts.

The amount of ardent spirit and wine annually consumed by the 13,000,000 inhabitants of the United States, cannot be less than 50 or 60 millions of gallons. This, at half a dollar per gallon, would cost 25 or 30 millions of dollars. It is impossible to estimate exactly the amount of opium and tobacco unnecessarily used among us :* Yet their value can hardly be thought less than 5,000,000 dollars. Let us look at some of the injurious consequences resulting from such an immense expenditure, and from the consumption of these deleterious substances.

1. From 300,000 to 500,000 persons are thereby made habitual or occasional drunkards. If each of these earns less per annum, by 100 dollars, than if he were temperate, the whole loss to the country is from 30 to 50 millions.

Some will say, that the country is not impoverished in this way, to such an extent ; because the distillation, transpor-

* Dr. Mc Allister, in his Dissertation on Tobacco, estimates the annual cost of this article to the consumer, from 10 to 16 millions of dollars.

tation, and vending of these articles, amount even to a greater sum. This reasoning would be sound, if the persons who distil, transport, and vend them, could find no other employment : but other employments might be found : probably no less lucrative. Suppose this to be done, and that each of the intemperate were to earn 100 dollars more per annum, than he now does. The wealth of the country would certainly be increased by 30 to 50 millions of dollars. This then is the amount of its loss.

The land flooded with poverty and crime !

2. But a dead loss is not all. The drunkard does not merely die to society : he cleaves to it, like a gangrenous excrescence, poisoning and eating away the life of the community. Three fourths of the pauperism in the United States results from intemperance ; and to support this number of the poor, it requires not less than 8,000,000 dollars, Three fourths of the crimes in the country originate, also, from the same source. Alcohol lets loose upon the community, an army of 90 to 100 thousand, who live by crime ; and their depredations, apprehension, imprisonment, and punishment, must cost several millions.

Waste of life.

3. From 30 to 50 thousand individuals, above the age of twenty, die prematurely, every year in the United States, in consequence of these substances. The profits of their labor, for the additional period they would have lived, if temperate, is a loss to the country, without compensation. Suppose they would have lived only ten years longer, and earned only 100 dollars per annum above their support : this shows us another loss of 30 to 50 millions of dollars.

The sum total.

4. There are other items in this account, which, though we cannot calculate their amount, must be large ; such as the losses sustained by the fraud and carelessness of intem-

perate agents and seamen, the casualties and accidents thence resulting ; the indolent habits acquired by the children of the intemperate, &c. The sum total of loss to the country, cannot be less than \$100,000,000; and probably it is twice that amount. Yet this sum is four times greater than the revenue of the United States ; it would construct 8,000 miles of canal, annually; or more than 10,000 miles of railway: nay, it would probably connect the gulph of Mexico and the Pacific ocean: it would support all the Colleges, Academies, and schools of every description, and all the clergymen in the United States: nay, it would send a missionary to every 2000 or 3000 souls on the whole globe: and it is fifty times more than the annual income of all the benevolent societies of the age—But pecuniary loss is not, after all, the most alarming evil that follows in the train of intemperance.

Our physical and intellectual character weakened.

5. It is undermining the physical and intellectual character of our country. As a general fact, the two stand or fall together: at least, we cannot expect, that the intellect should long maintain itself erect, vigorous, and well proportioned, when the body is half in ruins. The giant minds of other days, whose names and works will make the deepest impression on future times, were lodged in vigorous bodies: and if some of these have been found in periods of effeminacy, it shows only, that they withstood its deteriorating influence. Intellect is not necessarily cultivated and strong, where there is vigorous muscular strength: but where bodily debility and effeminacy extensively pervade a nation, we never look for great intellectual achievements. Knowing what were the habits and physical energy of the ancient Egyptians, Greeks, and Romans, we are not disappointed to find the display of a correspondent mental power, such as their history exhibits. But modern Egypt and Italy are the last places to which we look for intellectual prowess. Poetry may indeed kindle up her fitful lamp at the

funeral pile of the body ; but it is not the poetry of Homer or of Milton.

We have seen that the use of alcoholic and narcotic substances, tends powerfully to debilitate the constitution ; and the complaints, which they generate, descend hereditarily to posterity. Nor are these effects confined to the offspring of the habitually intemperate. These poisons, still regarded by multitudes as the *elixir vitæ*, are working a slow but fatal deterioration, in the constitution of thousands, who would resent the charge of intemperance with indignation: so that the influence has become truly national : nor is it among the feeblest of those causes, that are hurrying us fast away from the simplicity, purity, and the physical and intellectual energy, of our Pilgrim Fathers.

Our social character degraded.

6. The use of these substances is injurious to our social condition. When writers wish to exhibit the climax of human misery, they introduce us to a drunkard's family. And truly, if there be any suffering absolutely without alleviation from any human power—any degradation below the brutes—we are presented with it, in the drunkard's wife and children. Yet probably more than fifty thousand families in our country, are in a condition approximating to this.

But the use of these substances, even in a moderate degree, has a most unfavorable bearing upon domestic and social happiness. The powerful excitement, which they produce, destroys a relish for the simple and noiseless pleasures of home, and for virtuous, temperate society ; and a love is created for places of public resort, such as the grog-shop and the tavern. Here also, men can indulge in that grossness of manners, which is the natural consequence of stimulants and narcotics ; and which induces the dram drinker, the wine bibber, the smoker, the chewer, and snuff taker, to avoid the society of refined and virtuous females.

Such men know very well, that no lady wishes her parlor fumigated with the smoke of tobacco, or the exhalations

of alcohol; nor her eyes disgusted with a vest, or cravat, soiled by snuff, or the drivellings of tobacco; nor her ears saluted by a voice stifled with snuff, or garrulous with the silly talk and indelicate innuendos produced by alcohol.— These men, therefore, will be tempted to avoid the society of refined and intelligent females, and to resort to that of their own sex, where slovenly appearance and indelicate manners will meet with no reproof.* Such a separation between the sexes, will exert a most pernicious influence upon the condition of any people. It will create a relish for those grosser public amusements, such as theatrical exhibitions, circus sports, horse-racing, cock-fighting, bull-baiting, boxing matches, and gladiatorial contests, whose prevalence always indicates a diseased and sinking state of society. He must be a blind man, who has not seen for some time past, a rapid progress in this country towards such a condition.

The natural conscience stupified.

7. The use of these substances is making havoc with the moral and religious principle of the country. You can see in the man of settled religious principle, how even a moderate use of alcohol especially, blunts his moral sensibilities, and lowers the standard of his efforts. And in the confirmed drunkard, you see the work of desolation made perfect. Who are the men that trample the most furiously upon the Sabbath? whose mouths are open the widest in blasphemy? whose brazen fronts are foremost in the legions of infidelity and atheism? whose word is it, that no man dare trust? whose bosoms are steeled alike against natural affection and moral emotion? Who are the men that fill our

* “We see then, even as a dictate of refinement, that the use of tobacco should be abandoned; and it has been abandoned by all the polite circles of Europe.”—*Extract from a letter of several gentlemen of Utica to the Medical Society of the county of Oneida, contained in Mc Allister's Dissertation on Tobacco.*

prisons and penitentiaries? the men, who prowl through the land, for theft, fraud, and murder? Oh, these are the men who exhibit the genuine effects of alcohol. And who are the youth that are beginning to learn the dialect of profaneness? beginning to scoff at the faithful reproofs of parents and friends, and at the institutions and principles of religion; and are becoming familiar with the gaming table and the brothel? Oh, these are the young men, who are also addicted to the use of wine, brandy, and the cigar. And wherever you go, you will find that just in the degree in which wine and brandy are admitted, will religion be driven out, and conscience stupified. This desolating metamorphosis has already made fearful progress in our land; and if learning, morality, patriotism, and religion, do not unite to stop these destroyers, their history may be given in the prophetic language of inspiration: *A fire devoureth before them, and behind, a flame burneth: the land is as the garden of Eden before them, and behind them, a desolate wilderness; yea, and nothing shall escape them.*

Our liberties threatened.

Finally, the use of these substances threatens our liberties with ruin. We might as reasonably expect to see the palm tree flourish amid the ice-bergs of the arctic regions, as liberty, either civil or religious, existing where the great mass of the people are ignorant and depraved. Now I have shown that alcoholic and narcotic substances, are weakening the physical and mental energies of this nation, depraving our manners, and destroying the public conscience. Already a fearful breach has been made upon us, at all these points. And if the enemy continue to be resisted by forbearance, and proposals of peace and union, as he has been, the time is not distant, when not one stone, in the beautiful edifice of our independence, will be left upon another. Let the time come, when the electors, who are under the influence of alcohol, in conjunction with those, who are ignorant and unprincipled, shall constitute a major-

city, and our liberties will be bartered for a dram. For what do the men care for national liberty, who have sold all their faculties into the most vile and oppressive bondage, and who have nothing to lose? These are just the tools, which unprincipled leaders have always used for the destruction of free institutions; and they are already employed to an alarming extent in our land. It ought to startle us, to learn, that in our popular election, he who can deal out the most whiskey, is not unfrequently, on that account, the successful candidate; and that in a majority of cases, even temperate men take the tavern in their way to the ballot box, and thus unfit themselves as much for voting as for praying.

What can be done ?

Every true patriot, who looks steadily at this portentous cloud, that hangs with fearful aspect over our beloved country, and has already rained so many plagues upon us, cannot but feel that all which we hold dear, as freemen and Christians, is in danger; and with solicitude will he inquire, what efforts—what sacrifices can save us? The answer is easy—the effort is easy—the sacrifice is easy. Let all the intelligent and educated youth in our country, abstain from alcoholic and narcotic poisons, henceforth and forever; and try to persuade the community to do the same; and whatever other evils may destroy us, intemperance never will. So long as our free institutions exist, the men of education will control public opinion; and when public opinion is turned into the channel of temperance, the work is done. In a free country like ours, ignorance cannot extensively nor permanently influence the public mind, until corruption has pervaded the majority. Give me, therefore, the united example, and the united efforts, of one generation of educated men, and I will go forth with confidence, to encounter the giant-monster Intemperance; and though his height reach unto heaven, and he bestride the land at a step, yet

will I cut him down and hew him in pieces, and the next generation shall see only his bones bleaching in the sun.

Oh, young men, it is a moral Thermopylae in which you are placed : and the evils that threaten your country, are more dreadful than the invasion of a Xerxes with his millions. It was a less urgent cause in which the Bruti and the Gracchi offered up their lives. Nay, that was less urgent, which roused our fathers in the revolutionary contest ; for what foreign yoke, what civil oppression, can compare with the bondage of intemperance ? And yet, the efforts and sacrifices you are called upon to make, are not worthy to be named in comparison with theirs. They shed their blood in torrents to purchase your liberties and rights : Will you not deny yourselves the gratification of an unnatural appetite, to save the precious patrimony from destruction ?

Students ought to be in the front of the battle.

In the contest with intemperance, it is incumbent upon educated men to take their stand in the fore front of the battle ; not merely on account of their stations in society, but especially because in times past, such men have done more than other classes, to bring this scourge upon the nations. The distinguished poets of ancient and modern times have devoted their most captivating numbers to the praise of Bacchus. They have furnished the drunkard with his song, and the occasional drinker with his inspiring and elegant apology. Nor is it merely the poets of looser strain, who have done this ; such as Horace, Anacreon, and Shakespeare : but even the grave and religious Milton, devoted a beautiful ode to celebrate the virtues of wine : and the sentiment advanced by Armstrong, was but an echo of the opinion of most physicians, before the present day :

“ We curse not wine, the vile excess we blame.”

This sentiment has been the secret root, that has nourished nearly all the intemperance in the world : for scarcely an immoderate drinker of wine, or ardent spirit can be found,

who will admit that he indulges in the use of them to excess. True, he uses a greater quantity than he once did : but this he supposes necessary, on account of some change in his employment, or growing infirmities. To give a license, then, for moderate drinking, is in fact to license intemperance ; since no man is intemperate in his own estimation. Literary men, both by their writings and example, have generally given such a license : at least, it has been only here and there a retired philosopher, or physician, who has pleaded for total abstinence : and he has been regarded as an ascetic, or a dreaming visionary. Educated men are under peculiar obligation, therefore, to come forward in one unbroken phalanx, and endeavour to drive back the Vandal hordes of intemperance.—I ground my appeal,

IV. UPON THE PRINCIPLES OF CHRISTIANITY.

Scriptural argument for drinking wine and spirit.

But here I meet at the outset, an argument drawn from the Bible, in favor of using wine, and even ardent spirit. Our Saviour, it is said, had sanctioned the use of wine, by his miracle at the marriage in Galilee, and by employing it at the institution of the eucharist : and Paul has done the same, by recommending it to Timothy. Indeed, nowhere in the Bible is wine prohibited to men generally ; but only its excess. Nay in one instance, at least, we find an express permission to the Jews, to use not only wine, but strong drink. One of the tithes, which they paid every second year, those living remote from Jerusalem, had liberty to convert into money, and having brought it to that city, the command was ; *thou shalt bestow that money for what thy soul lusteth after ; for oxen, or for sheep, or for wine, or strong drink, or for whatsoever thy soul desireth : and thou shalt eat there before the Lord thy God, and thou shalt rejoice, thou and thine household.* Now it is difficult to assign any reason, why God should prohibit that to a Gentile, which he permitted to a Jew : hence we may conclude, that wine and ardent spirit, in moderate quantity, may be lawfully employed in any part of the world.

Reply as to Wine.

Concerning wine, I remark, in reply to this argument, that a permission to use it in Judea, is a very different thing from allowing its use in the United States. For in the first place, the wine sold in this country, is, as I have already shown, a very different substance from that used in Judea, or any other country where the grape is cultivated. Forty nine fiftieths of our wines are a mixture of wine, cider, brandy, and sometimes the juice of berries, sumach, logwood, spices, aromatics, sulphur, and other plants, more or less poisonous. In short, they are generally ardent spirit in a diluted form, disguised by substances hardly less injurious. To be permitted to drink the pure juice of the grape, which is the common wine of Judea, is surely a very different thing from a grant to use such deleterious compounds. Indeed, let any one point out to me, if he can, the difference between using brandy and water, and brandy mixed with wine?

In the second place, I remark, that in those countries where the grape is cultivated, the use of wine is equivalent to the use of cider in those countries where apples are abundant; but where the grape does not grow. For they both serve as very common drinks in the respective countries, where they are produced. And the most usual and abundant productions of different countries, seem generally, to be adapted by Providence to the peculiar circumstances and wants of their inhabitants. The example of Christ and Paul, therefore, if it authorizes the use of wine in wine countries, merely authorizes the use of cider in cider countries; and cannot, by any sound logic, give a license to employ wine in cider countries; especially since most of the wine there used, is an entirely different and most objectionable substance. Now if Christ had converted water into cider at the marriage, or if Paul had directed Timothy to drink a little cider, who would have thought this to be a license for the use of wine! Yet certainly the miracle and

the advice amount to no more than this, when applied to this country. And it is certainly worthy of the serious consideration of the Christian Church, whether, by using at the holy supper, the common wines sold in this country, they are not, in fact, using ardent spirit in disguise?

Reply as to Spirit.

As to any permission given in the Bible to use ardent spirit, I remark, that the whole Bible contains not a syllable concerning ardent spirit: and for this reason, that it was not known to exist, till about nine hundred years after Christ, when it was brought to light by an Arabian chemist, in the process of distillation. The *strong drink* several times mentioned in the Bible, was merely a particular sort of wine, made from dates and various seeds and roots;* nor is there any evidence that its intoxicating power was greater than that of wine produced from the grape.

Let us now inquire, whether the principles of the Bible demand total abstinence from the alcoholic and narcotic substances under consideration.

Lead us not into Temptation.

These principles require us to avoid temptation. Now from 30,000 to 50,000 individuals in our land become sots every year, by moderate indulgence in these articles; for this is the number annually required, to fill up the vacancies occasioned by death in the ranks of intemperance. And I have shown that literary men are peculiarly exposed to this temptation. He, therefore, who neglects to secure himself against it, forfeits the promise of a divine protection; and depends only on his weak and treacherous heart, where he needs an angel's holiness and an angel's strength.

Thou shalt love thy Neighbor as Thyself.

The great law of Christian benevolence requires us to love our neighbor as ourselves. Now we do not probably influ-

* Jahn's Biblical Archæology, § 144.

ence our neighbor's welfare and happiness so much in any other way, as example. Hence, to continue ourselves to use even moderately, stimulants and narcotics, contributes to strengthen our neighbor in the same practice : and he falls a sacrifice to intemperance. It needed, perhaps, only our example of total abstinence, to have saved him from ruin : but that example was on the other side, and it helped to smother the cries of reason, and to repress the throes of conscience. No wonder the Bible pronounces a woe upon him, who gives his neighbor strong drink, and puts his bottle to him, and makes him drunken also. Let it be remembered, that this may be done by example, as well as in any other way.

I know that the selfish heart will exclaim against self denial, merely for our neighbor's good. But very different is the spirit of Christian benevolence. *If meat make my brother to offend*, says Paul, *I will eat no flesh while the world standeth ; lest I make my brother to offend*. Indeed according to this law of love, *every man is guilty, who suffers any evil to come upon his neighbor, which he could have prevented, consistently with other duties*.

Another branch of this law

That great branch of the law of love, which requires that *whatsoever we would that men should do to us, we must do even so to them*, leads us to the same conclusion. What, then, is that man doing to others, who refuses to abstain entirely from the alcoholic and narcotic substances we have mentioned ?

By his example, he contributes to uphold a practice, which brings an annual expense upon his fellow countrymen, of more than 100,000,000 of dollars ; and thus to reduce to extreme poverty and wretchedness, from 50,000 to 100,000 families ; and not less than 150,000 individuals to pauperism : And to shut up 50,000 men annually in the debtor's prison : And to send out 90,000 murderers, robbers, incendiaries, thieves, and the like, to make havoc in society : And to render from 300 to 500 thousand citizens habitual drunkards : And annually to make a draft upon the temperate part of the commu-

nity, for 30 or 50 thousand recruits, to fill up the wasting ranks of drunkenness: And to pour out upon the land, such a flood of corruption and profligacy, as seriously to degrade, and threaten with utter ruin, her social, intellectual, political, and moral character.

Now is there any thing in all this list, which a man would wish to have his neighbor do unto him? any thing that does not directly violate the law of Christian love? But this is not all, nor the worst: for the man who abstains not entirely from stimulants and narcotics, is giving the weight of his example in support of an evil, that sends prematurely into eternity from 30 to 50 thousand of his countrymen every year: that is, from 500 to 1000 every week; or from 70 to 140 every day.

Ah, my friends, this part of the subject possesses a momentous interest, and takes hold upon the retributions of eternity. For what is it to go into eternity, a drunkard? *Be not deceived; neither fornicators, nor idolaters, nor adulterers, nor effeminate, nor abusers of themselves with mankind, nor thieves, nor covetous, nor drunkards, nor revilers, nor extortioners, shall inherit the kingdom of God.* Oh, it is a fearful responsibility to exert even a feeble and remote influence, in thus precipitating such a multitude of souls, "uncalled, unhouselled, unanointed, unannealed," upon the uncovenanted mercy of God! Let no one forget, that human laws inflict an equal punishment on the accessory and the principal; and that the sanctions of the Divine Law are the same. How can he, then, who has been accessory to the drunkard's ruin on earth, hope to escape the drunkard's doom in eternity!

LECTURE V.

LIQUIDS : *when and in what quantities necessary.* Malt
Liquors—Cordials—Cider—Coffee—Tea—Toast wa-
ter—Gruel, &c. Milk. SOLID FOOD ; Eggs—Fish—Birds
—Mutton—Beef—Lamb—Veal—Venison—Pork—Fat—
Grease—Oils—Butter—Cheese—Honey—Bread—Pies—
Cakes—Puddings—Fruit—Esculent roots—Pulse—
Pickles—Salads—Cookery—Condiments. Concluding Re-
marks.

Common Drinks.

GENTLEMEN,

The liquid parts of the human body far exceed the solid in weight ; and they are, to say the least, no less subject to waste and decay ; and therefore, need to be daily repaired. Hence the need of liquid food : and it is generally considered, that this should exceed the solid in quantity, as much as the liquids in the system outweigh the solids. To supply this desideratum, is the object of that feeling called thirst, which is essentially distinct from the sensation of hunger. Indeed, the two rarely coexist naturally, in the same animal. But the habits of society are continually changing and perverting the course of nature. Hence men usually mix a large quantity of liquid, with their solid food. Where the latter is very dry and hard, indeed, it requires the dilution of a certain amount of the former, in order that the gastric juice may have free access to every part of the mass in the stomach. But when the quantity of fluid is great, this solvent is too much diffused to act with energy on the contents of the stomach. In weak stomachs,

therefore, a fit of indigestion usually follows the introduction of much liquid, along with solid food. And in general, the error lies on the side of taking too much fluid. After the digestion has proceeded to a certain stage, there can be no doubt, that a repast, mostly fluid, such as water, milk and water, or tea, assists the process of chylicification. Hence there is a propriety in the common practice of taking tea a few hours after dinner. And hence too, those act the wisest part, who take little or no drink with their dinner. But if a person confine himself almost entirely to water, never mixing anything with it, unless it be milk, or sugar, or molasses, or vinegar, and take a proper degree of exercise, so as to produce only natural thirst, there is little danger that he will drink too much. One great objection against the various narcotic and stimulant drinks, that are so much in vogue, is, that they excite an unnatural thirst, and destroy a natural one. "Many" says Dr. Faust's Catechism, "from not taking sufficient exercise in the open air, and from drinking frequently large quantities of warm drink, lose all real thirst; and from not drinking a sufficient quantity of cold water, their blood remains viscid, acrid, and impure." (p. 61.)

Proper quantity of liquid.

The proper quantity of liquid food is about three or four pints per day: though the feeble should not take more than two or three. The quantity will necessarily be greater in summer than in winter, and the laborious will need more than the sedentary. These are essentially the rules adopted by the training gentry in Great Britain; and we need not fear that they will be intentionally out of the way.*

Temperature of food and drink.

As to the temperature at which our drink and solid food should be taken, the general rule is, that it should be very

* Sure Methods, &c. p. 67.

little above or below the heat of the blood ; that is, 98° of Fahrenheit's thermometer. In winter, perhaps, water may be raised somewhat above this point, without injury ; and in summer, sunk somewhat below it. But the habit of drinking tea or coffee, every day, at as high a temperature as can be borne, whether in summer or winter, is certainly very pernicious. True, the stimulus of such a potation produces a present relief, and a pleasurable state of the feelings ; and it is by the immediate effects, that men in general judge of the value of food and medicine : hence you cannot persuade the nervous lady, or gentleman, that their scalding hot tea does them any injury : But the physician, who is obliged to listen to their woful tale of suffering, knows full well how their trials are aggravated by such a debilitating course ; although he may not perhaps distinctly declare it to them, because he knows that they will not believe him.

Towards the zero end of the scale is another dangerous practice : I refer to the use of ice, to cool the liquids which are drunk in very hot weather. The numerous deaths that annually occur from the rash and abundant use of common spring water, when the body is heated, show how powerful are the effects of suddenly lowering the temperature of the stomach only a few degrees ! How must the danger be increased, by introducing a fluid nearly at the freezing point ! If immediate prostration of the powers of life do not follow, yet a benumbing shock is given to the system, from which it may never rise.

Malt liquors.

Several articles of drink, mentioned incidentally in the last lecture, such as strong beer, porter, cider, tea, coffee, &c. deserve a few moments more of attention. Malt liquors are more used in Great Britain than in any other country ; and by some are called *vinum Britannicum* ; and by others, who extol their virtues, *liquid bread*. Their effects upon the British soldiery are thus described by a poetical encomiast :

“Your wine-tipping, dram-sipping fellows retreat,

“But your beer-drinking Britons can never be beat.”

Strong beer, ale, porter, small beer, and spruce beer, are included in the term, malt liquors. As to small beer and spruce beer, there can be little objection to their use, except it be that they may occasion a disrelish for pure water, which has been shown to be the best of all beverages. Nor can it be denied, that strong beer, ale, and porter, possess some nutritious qualities, besides the water that enters into their composition. But they do also contain so much alcohol as to produce intoxication: and in Great Britain, where 420,000,000 gallons of beer are annually drunk, or more than 20 gallons to each inhabitant,* these effects are painfully manifest. Dr. Johnson says, also, that the use of malt liquors is prolific in disease; producing corpulency, obesity, hebetude, vertigo, apoplexy, hydrothorax, and other diseases of the heart and the head. He, therefore, is hostile to their use, and declares that “the beer bibber has probably little reason to exult over the dram drinker.” Other physicians, of eminence, however, commend them; not because they doubt that these effects do follow, but because some good accompanies the evil; for they fancy that the use of ardent spirit is thereby prevented. In other words, they prefer the less evil. But with young men of literary habits, such an argument can have no force: for they ought to desire to use those articles of food and drink, that are best adapted to promote their health, long life, clearness and vigor of mind, and ability to be useful; and to accomplish all this, physicians agree that pure water alone is the best beverage.†

Standard of temperance.

To this point, it seems to me, students must ere long come: especially those who have consciences, and have

* Journal of Health, Vol. I. p. 27.

† See Note X.

adopted the principle of total abstinence from ardent spirit. There is no other stopping place, that will not leave them with a narrow and slippery foothold, upon the side of a precipice. They must give up cider, and perry, and porter, and metheglin, as well as strong beer, and all those flavored and most mischievous cordials, known by the name of *liqueurs*, for similar reasons. To come at once to this natural and safe resting place of temperance, can require no very painful self denial in the young, while they yet have vigor of constitution, resolution, and freedom from enslaving habits. Those more advanced in life, will struggle long with reason and conscience, before they will come to it. If they give up ardent spirit, they feel as if they had made a wonderful sacrifice; and they cannot believe but that their constitutions require some of those bracing and cheering beverages. Well, let them have them, if they will: but let not our young men neglect to set a noble example on this subject. Oh, what a host of the genuine disciples of Bacon, and Newton, and Franklin, and Howard, and Edwards, would such a resolution, made by all in our seminaries of learning, raise up to bless the church and the world!

Tea and coffee.

The other articles to which I referred, as common drinks, are tea and coffee. Whatever we may think of their quality, the quantity of them consumed among men, is enormous. In all the world, not less, certainly, and probably very much more, than 150 millions of pounds of coffee, are used annually.* In Turkey, France, and Great Britain, about two thirds of a pound to each inhabitant, are consumed. The consumption of tea in Great Britain, amounts to nearly 23 millions of pounds per annum; or one pound two ounces, to each inhabitant. In the United States, as an English writer computes, we use about as ma-

* Rees' Cyc. Art. Coffee.

ny pounds of tea as we have inhabitants; i. e. 12 or 13 millions: and two pounds of coffee for each inhabitant.*

Their effects upon the health.

As to the influence of these articles upon health, there has been a great diversity of opinion among the ablest physicians. In such a case, we are certainly safe in concluding, that they are by no means necessary to health or happiness. Indeed, the history of their introduction, goes to prove the same point. Coffee cannot have been in use, even in the East, more than 400 or 500 years; as no mention is made of it by the crusaders: and tea cannot claim an antiquity, out of China, of more than half that period. The greater part of the world, therefore, have lived and died without using tea or coffee; nor was their introduction succeeded by any remarkable change in life; either lengthening it out, or cutting it short. Nor can it be denied, that the use of these articles affords a great deal of happiness; and perhaps it tends to prevent some worse habits being formed. After all, it must be confessed, that the bewitching influence of these substances, lies in their narcotic properties—the same principle that gives opium and tobacco their attractions. They exhilarate the system, producing a pleasureable glow, and lessening nervous irritability. They do this in a less degree, than ardent spirit and wine: still the exciting principle is essentially the same; that is, it is a narcotic. As to the nutrition imparted by these substances, apart from the water, milk and sugar, with which they are prepared, although coffee may impart some, there is no more in tea, than in tobacco, opium, or ardent spirit—that is, none at all.

From these facts, it might reasonably be inferred, that these beverages, if drunk in considerable quantities, and strong, must be injurious to every dyspeptic, and to all

* See Journal of Health, Vol. 1. p. 27. ; and New York Mercury for January, 1830.

of delicate nervous temperament, particularly females, who are chiefly confined to the house. And to the correctness of this conclusion, the most distinguished physicians bear abundant testimony.

Medical testimonies.

"From the experience which I have had," says Dr. Trotter, "in some thousands of these cases, (nervous maladies,) under all the variety in which they usually appear, I freely give it as my opinion, that the only means of cure, lies in a total abstinence from every species of fermented liquor; from every thing that bears any analogy to them, such as tea, coffee, opium, and all other narcotics."*

Q. "Why are people, particularly women," asks Dr. Faust in his Catechism, "so fond of tea and coffee?"

A. "Because for want of exercise, they have no natural or real thirst; and because they have been used to them from their infancy."

Q. "What ought to be the only beverage of children?"

A. "Pure, good, cold water, ought to be the only drink of children and young folks; who ought to be prohibited from drinking beer, coffee, tea, or other warm liquors."

As to tea, Dr. Johnson, (not he of tea-drinking memory,) says, that "we may fairly set it down as contributing in no mean degree, to those derangements of the digestive organs and nervous system, which now meet our eye at every step."†

"Coffee," says an able writer in the Southern Review, "painfully increases the arterial action, producing palpitation of the heart, &c. and in spite of all that has been said and written in its favour, is, we think, nearly as injurious to the dyspeptic as so much brandy. Tea acts on the nervous system, as is well proved, by its almost universal effect in producing wakefulness. They are both absolutely

* Nervous Temperament, p. 288.

† Hygiene, p. 193.

unnecessary to any one ; for if something warm must be taken, the distressed stomach will find a harmless succedaneum in milk and water sweetened, or gruel.”*

“ As guardians of Health,” say the editors of the Journal of Health, “ we are bound to warn the feeble, the nervous, the dyspeptic, the hypochondriacal, the gouty, those whose hearts beat as if they would burst from their case on the slightest noise, or unexpected remark, the fretful and the capricious in temper, the delicate student, or man of letters—that strong tea and coffee are injurious and cannot be tolerated by them with any regard to their bodily comfort and mental tranquility.”

Make up your mind deliberately.

In these extracts, young gentlemen, you have the opinion of several of the most distinguished living physicians, respecting tea and coffee. Those of you who are in health, can now make up your minds as to using them. If at once you come to the resolution to abandon them altogether, depend upon it, you will not only avoid the danger to the health that attends them, but you will be rid of a most troublesome habit, and in the course of life you will save a great expense: Nor, should feeble health be your portion hereafter, will you be compelled to abandon the habit of tea and coffee drinking, when it will be like cutting off a right hand, or plucking out a right eye—a work few invalids have the courage to accomplish; and so they go on counteracting by strong tea and coffee, the good effects of medicine, abstemiousness and exercise. If any of you are in feeble health, can you hesitate, before it is too late, to listen to this most decided advice of distinguished medical men; and by abstaining from these articles, rid yourselves of an insidious hindrance to your restoration and happiness?

Objections of nervous tea drinkers.

I am aware that I shall be rebutted here, by the experi-

* For August, 1829, p. 227.

ence of nine tenths of the nervous ladies and gentlemen in the land. With one voice, they will exclaim, that their evening cup of tea is as necessary to prevent, or cure, their headach, as food is to the nourishment of their bodies. I do not doubt this statement at all: but I say, if tea be a *cure* for their headach, it is also, most commonly, the cause of it. The truth is, their nervous system is out of order; and when not under the influence of unnatural stimulus, debility and headach come on, as a natural consequence. Now by strong tea or coffee, their nerves are stimulated, so as temporarily to remove the debility and the headach: but as soon as the excitement is over, the system begins to sink again, and the headach returns; and resort must be had anew to the exhilarating narcotic. But the repetition of this process gradually exhausts the powers of life, and it is necessary that the stimulus, that is, the tea, should be stronger, and be taken more frequently, in order to produce the excitement requisite to carry off the headach. I believe this is in exact accordance with the history of every confirmed tea drinker. He, or she, requires it stronger and oftener, as long as the constitution holds out. How exactly does this course resemble that of the drunkard! And what is the difference between the two, except that tea does not brutify the individual, nor so soon destroy life! If the intemperate man abandon his cups for a time, he will be beset with that terrific set of feelings, called the horrors: but at length they pass away, and nature moves on regularly and calmly; and peace, and health, and happiness return. Just so, if the tea drinker gives up his beverage; he will find for a time, that dullness, debility and headach are the consequence. Many, in such circumstances, conclude that this is certain evidence that tea is necessary for them, or very salutary; and they therefore, return to its use. But were they to persevere in their abstinence for a few weeks, or months, their morbid feelings would disappear; and probably their headach would be permanently cured. Although but little attached to tea myself, I may be permitted here to

say, that having drank it in early life in the morning, I found dull nervous headach no uncommon companion. About twelve or fourteen years ago, I ceased to drink it in the morning; and the consequence was, that for one or two months, all the early part of the day, I was afflicted with an almost constant headach and heaviness; which however, gradually disappeared; and since that time, headach has been one of my rarest trials.

Green and Black Tea.

But if I cannot persuade any that it is the part of wisdom wholly to abandon the use of tea and coffee, while young—except perhaps in cases of exposure to wet and cold, or fatigue—let me persuade them to use the black tea; and to avoid green tea as a poison. In this advice, all medical men, I believe, however they may differ as to the general utility of tea, coincide: representing “all green tea as exceedingly pernicious, having a strong tendency to injure the stomach and bowels, and the whole nervous system.”* As to the cause of this so marked difference between the effects of souchong, pochong and bohea, which are the black teas; and hyson, young-hyson, gunpowder, imperial, &c., which are the green teas; it is difficult to explain it; though it is said, that the prussic acid, one of the most deadly of all poisons, has been detected in the latter. But whatever be the cause, the effect is certain: and the literary man, and the nervous invalid, and delicate lady, cannot use the latter class, without experiencing the most decided injury. Even where the black tea is used, the water of the infusion should be of good quality, a good proportion of milk and sugar should be employed, and the quantity taken should be very moderate, and less should be taken in the morning than in the evening.

Green tea mostly used.

In view of these principles, it is greatly to be lamented,

* *Sure Methods*, &c. p. 43.

that by far the greatest proportion of the tea used in this country, is green tea. Even the poorest families,—and tea is used in almost every hovel in the land, where a human being resides—are satisfied with nothing short of the high priced green teas; souchong being thought too poor for them, and bohea absolutely vile. But it is not among the poor and labouring classes of the community that green tea is most hurtful. It is in the every day coteries of delicate, thin-dressed, and tight-laced females, where it is served up in giant strength, that its ravages are most dreadful. The tea that is offered at most of the visiting parties in our land, is really more injurious than a moderate quantity of wine or brandy: And yet the advocates of total abstinence from spirit, who would feel exceedingly guilty to offer alcohol to their friends, are often found most devotedly attached to two or three cups of the strongest infusion of Imperial, or Gunpowder, or Young Hyson. Nay, if my observation does not deceive me, strong beer, and strong tea, are taking the place of ardent spirit with not a few. This might, indeed, be, upon the whole, a desirable change: but after all, it is substituting one species of unnecessary indulgence for another; and the man is still a slave, and may become a victim. The pernicious custom is gaining ground among us, of having tea or coffee served up with dinner, as well as with breakfast and supper: and if I mistake not, this practice is not uncommon, among ministers of the gospel upon the Sabbath. Their nerves must be stimulated, thus unnaturally, for the morning service; and then again for the afternoon; and in the evening, to save themselves from utter prostration. To say the least, this is a sure way to wear out the system prematurely: and for dyspeptics to take this course, is absolute suicide: and I could wish such men seriously to enquire, how much there is to choose, between the excitement produced by the narcotic power of young hyson, and the stimulant power of wine or brandy? This is one of the temptations, against which, I would most solicitously caution the young man, who is aiming at the holy ministry.

Oh, be temperate in all things, be holy, be heavenly minded, be men of prayer, and you will need no such artificial stimulants.*

Other Beverages.

As to several other kinds of beverage, not in so common use, in the place of tea and coffee, I have but a word to offer. The best substitute for coffee, scarcely to be distinguished from it, indeed, in taste, though destitute of the narcotic qualities of coffee, is well burnt rye. It is recommended, also, in an economical point of view. Chocolate contains more nourishment than coffee, and is perhaps more wholesome; though from its oily nature, difficult of digestion. Cocoa is only a weak chocolate, and therefore, better for the sedentary and the studious. Balm and sage are admirable substitutes for common Chinese tea; as is also the patridge berry; particularly for persons of weak nerves. “John Hussey, of Sydenham in Kent, who lived one hundred and sixteen years, took nothing for his breakfast, for fifty years, but balm tea, sweetened with honey.” But these articles are neither dear-bought, nor far-fetched; and therefore, but few will use them.

Toast water, made by soaking toasted bread in hot water; Barley water, or a decoction of barley; and Gruel, which is a decoction of oatmeal, though in this country, the meal of Indian corn is often used instead of that of oats;—all these, are mild, nutritive; and unobjectionable drinks; and after the stomach has learnt to relish simple, unstimulating diet, they are extremely agreeable to the palate. To these we may add warm, or rather hot water, with a little milk and sugar, as a harmless and salutary beverage, particularly in the winter: and with such a list of substitutes for tea and coffee—all destitute of narcotic qualities—the temperate man, who gives up these articles, surely need not apprehend much of privation and suffering; and he will certainly gain much in comfort and happiness.

* Note Y.

Broths, Soups, &c.

Broths, soups, and beef tea, with a due proportion of solid animal and vegetable food, are highly nutritious and wholesome. Persons of weak digestive powers, however, most commonly find that liquid food is disposed of by the stomach less easily than solid food: hence these articles should be taken by such, if taken at all, with abundance of bread.

Milk.

Of all liquid aliments, milk is the most valuable; constituting the sole nourishment, for a long time, of all the mammiferous animals. It consists of a liquid portion and a solid portion; the latter being less than the former, probably in the ratio in which the animal system requires solid and liquid nourishment. The gastric juice has the power of immediately separating the solid from the liquid portion, that is, the curd from the whey, by coagulation. Hence milk is scarcely objectionable for weak stomachs on account of its liquidity; unless it be in some very peculiar instances. Yet not a few invalids, and some even in vigorous health, have so educated their stomachs to something more stimulating, that this simple food oppresses them, and produces acidity, heartburn, and the like: and such persons forthwith conclude that milk does not agree with them: Whereas, would they persevere in its use, either in its unchanged state, with plenty of bread, or converted into porridge, the stomach would in most cases be gradually restored to a more healthy state, and its morbid secretions, which were so hostile to milk, having disappeared, they would find this diet, particularly for breakfast, of the most delicious and salutary kind; as multitudes have testified, who for years have substituted it for tea, coffee and meat. True, for a time there will be produced a sensation of faintness and weakness: but even if it should continue, such debility is by no means as dangerous to the dyspeptic, as the forced muscular energy, and the sense of satiety

and fullness, that result from more stimulating diet. But in this gormandizing age, I fear I shall plead in vain, for a return to this simple breakfast—the delight of our robust fathers, and even now, the diet of some of the most vigorous and healthy inhabitants of our globe. But the sedentary and the literary men of our days, cannot, as they imagine, be sustained without something more invigorating and nourishing. “It is amusing,” says the *Journal of Health*, “to hear a nervous female, whose daily exercise consists in going up and down stairs two or three times a day and shopping once a week, complain that she cannot preserve her strength unless she eats freely of some kind of meat, and takes her daily potations of strong coffee, to say nothing of porter, or wine sangaree.”—“For the information of all such misguided persons, we would beg leave to state that the large majority of mankind do not eat any animal food, or so sparingly, and at such long intervals that it cannot be said to form their nourishment.” Milk, however, is an animal product; although it differs from meat, in containing no nitrogen; and seems to hold a middle place between vegetable and animal food.

Diet for consumptive invalids.

A late medical writer, in his *Manual for Invalids*, recommends milk, as better calculated than any other kind of food, for those who are predisposed to consumption. “Milk,” says he, “has been found to be an animal fluid, affording the most tonic sustenance, with the least stimulating quality, of any thing that can be named.” The influence of a milk diet upon the mind is extremely salutary. Even as early as the days of Homer, we find him designating the milk eaters, not only as long lived, but as the most upright of men:

Γλακτοφάγων Ἀθίων τε, δικαιοτάτων ἀνθρώπων.

Whatever foundation there may be for this opinion, certain it is, that a diet chiefly of milk, does produce a most

happy serenity, vigor, and cheerfulness of mind; very different from the gloomy, crabbed, and irritable temper, and foggy intellect, of the man, who devours flesh, fish, and fowl, with ravenous appetite; and adds puddings, pies, and cake, to the load.*

Curious Compromise.

Some persons, convinced in their consciences, that milk diet at one of their daily meals would be serviceable, yet too much wedded to their meat, or their coffee, to give them up, have undertaken to unite the two, in a manner highly agreeable to a glutton's taste. After devouring their usual rations of meat, they take a bowl of bread and milk, to neutralize all the bad effects of their hearty meal. This is like loading down a cart with gravel, and then adding a few bushels of apples to make the draught easier.

Solid Food.

In speaking of solid food, I shall be as brief as possible; only presenting the result of general experience, particularly of weak stomachs, as to the digestibility and nutritive powers of the different varieties. On this subject, however, there is no such thing as a universal rule. For a man's stomach does sometimes digest an article of food, which in another condition, it could not master. Early habits, also, are to be taken into the account. Thus, a medical writer says, that "a dyspeptic Irishman can digest a potato which would kill a Scotchman. So bacon and long collards might lie easy in the bag of a Virginian, when they would raise a tempest in that of a New-Englander, whose stomach would rejoice in a sop of molasses that would turn the Virginian's insides into a vinegar cask."†

Grand Point in Dieting.

These remarks show us that the grand point in a system

* Note Z.

† Southern Review, Aug. 1829. p. 225.

of dieting, is not to select certain articles of food, as indigestible, and others as digestible, and then, ever afterwards, to reject the one class as poisons, and adhere to the others as if they were sure to save life and restore health, paying little or no attention to the quantity. Yet this is the whole amount of the dieting, of which many make so much noise. They would as soon commit sacrilege, as to taste of the proscribed articles—perhaps pickles, cheese, or fruit—while at the same time, they will swallow down, pork, beef, gravies, puddings, pies, &c. almost without end; and all the while imagine, that they are wonderfully strict in their diet. But the truth is, there is scarcely any article of food that may not be digested with comfort, even by a weak stomach, provided the quantity be not too large. Hence, when a man is so situated, as to be under the necessity of making a meal, from a dish which is very indigestible in his stomach, his only safety lies in taking special care that he does not eat too much of it.

In respect to most articles of food, however, there is a general agreement among those best qualified to judge; I mean among persons of weak digestive powers; as to their agreement or disagreement with the stomach.

Eggs and fish.

In respect to digestion, we may place eggs next to milk, when they are lightly boiled, or for two minutes and an half.* But boiled hard, or fried in the fat of pork, or bacon, we may place them next to pebbles. Fish hold a

* "The best mode of cooking this nutritious and valuable article of food," says a correspondent, "I have found to be the following. After the water boils, take it from the fire, and place it at a little distance, where it will not cool too fast—put in the eggs, and let them remain from 5 to 7 minutes, moving them around once or twice. They will then be moderately cooked nearly to the centre, whilst the albumen will be only a soft jelly quite to the shell."

Any one has but to try this method to be convinced of its superiority.

middle rank as to nutrition, between vegetables and warm blooded animals: and in a proper state, and properly cooked, several species are not difficult of digestion. Salmon, however, when salted, though very nutritive, is extremely indigestible. The same may be said of eels. They are too oily, and are said, like all other oily species, to produce eruptions on the skin, which, in warm climates, are very troublesome. Hence the reason why all fish without fins, were prohibited to the Jews, in the Levitical law. Of the shell fish, oysters are the safest: lobsters, muscles, crabs, &c. need the strongest powers of digestion to manage them. Upon the whole, every invalid should be very cautious and sparing in his use of fish. "It is," says an able physician, "a very precarious if not dangerous species of food in weak stomachs. Without butter, or other sauces, it is insipid; and with these additions, it is poison."*

Poultry, Birds, &c.

Of the class of birds, the flesh of the common hen is, upon the whole, the best and easiest of digestion. The guinea hen, quail, common pigeon, and lark, are nearly as good. But to digest goose, requires a stomach of Herculean power. Ducks and all wild water fowl, are nearly as bad—and the turkey, especially with its attendant stuffings and gravies, is not much better.

Flesh of Quadrupeds.

The meat of quadrupeds mostly in use, is beef, mutton, lamb, veal, venison, and pork. These contain a great deal of nourishment in a small space: and if we consider merely the comparative ease with which animal substances are decomposed, the flesh of quadrupeds would be thought very easy of digestion. But experience shows that it produces greater heat and irritation in the system—called by Dr. Paris "the digestive fever"—than vegetables; and hence

* Mordid Sensibility. p. 113.—See also Note N.

it urges on the powers of the invalid too fast, and though it may give him temporary vigor, it weakens the digestive organs, and ultimately aggravates his complaints. Hence the necessity of mixing bread and other farinaceous food with meat : and hence too, the nervous and the feeble, except in peculiar cases, should be very sparing in animal diet. Fresh meat, which has been kept as long as may be, without putrefaction, is undoubtedly far more digestible than pickled, salted, or smoked. Mutton is said to be the best of all these meats, so far as digestion is concerned : lamb is less valuable ; and in general, “ the flesh of young animals is less nutritious and less easy of digestion, than that of full grown.”* Hence it is, probably, that veal is found to be so very unfriendly to a weak stomach. For tender beef, next to mutton, is perhaps best adapted to such ; and in point of nourishment, it stands, I believe, at the head of the list. The flesh of the deer, the hare, and the rabbit, little known in this quarter of the world, is said to be very digestible and nutritious. Pork also yields perhaps to no food in point of nourishment ; and is hence well suited to persons who lead an active laborious life : but can hardly be considered wholesome for the sedentary and the literary, even when their health is good ; for it produces obesity, disorders of the skin, and foulness of the digestive organs. Salt pork is more unfriendly to health than fresh : and as to bacon, it is so extremely indigestible and heavy, that it ought if possible to be avoided, except by the healthy and laboring classes. The same may be said of beef that has been thoroughly salted ; though that which is merely corned, is more agreeable and salutary.

Rule for the Invalid.

In all cases, however, in which the invalid cannot conveniently avoid partaking of such kinds of meat as salt pork, beef, bacon, and veal, there is one very safe rule for him to

* Sure Methods, p. 11.

follow ; and that is, as already mentioned, to partake of it in so small a quantity, as to be sure of not overloading the stomach.* Every man of feeble digestive powers, ought, therefore, to know, in general, how different articles agree with his stomach ; that he may judge how much of each he can bear. He ought to know, for instance, that a man can bear about four times as much of milk and vegetable diet, as of meat†—and that one pound of roasted meat contains as much nourishment as two of boiled meat:‡—and that “an ounce of fat meat affords nutriment equal to four ounces of lean.”||

Fat, and Grease.

It is of great importance, also, for every man to know that fat and grease of all kinds, and the different oils, are among the most indigestible and dangerous of all articles of food. Hence all those preparations of flour, potatoes, bread, eggs, &c, that are baked or fried in grease, or lard, are to be shunned by the invalid and the sedentary, and indulged in only by the athletic hind, who does not know that he has a stomach. Probably grease or fat, when burnt, stands at the head of all indigestibles. Yet I believe it is no unfrequent ingredient of the diet of the sedentary. It comes upon the table, if I mistake not, in the form of burnt pork, burnt spare rib, burnt goose, and turkey, &c. and some dyspeptic stomachs are in so morbid a state as even to crave the poison.

Butter.

From these remarks, in regard to the generally injurious effect of oils, fat, grease, &c. we must except fresh, unmelted butter ; which, used in small quantities, upon cold bread,

* A far better rule, however, when it is possible, and it generally is so, is to substitute a vegetable diet for meat. If an invalid can get bread and water, he is in no danger of suffering.

† Cheyne on Diet and Regimen. p. 30.

‡ Paris on Diet, p. 76.

|| Paris on Diet, p. 72.

is generally, though not always, wholesome. When melted, however, it clogs and spoils digestion : and hence the wisdom of avoiding dipped toast. Solid butter, also, if used, as not a few do use it, in quantities almost equal to the bread which it covers, must be injurious : it ought to be regarded only as a condiment, to be spread as thinly as possible over the bread ; or else it should be abjured.*

Cheese.

Cheese is by far more hurtful than butter for the invalid. It is very hard of digestion, produces constipation, and affords but little nourishment : and the most vigorous powers of digestion can alone grapple with it. If toasted, it is still worse. For the invalid to mix it with bread and butter, pyc and cake, is *suicidal*.

Farinaceous Aliments—Bread.

The most important articles of nourishment, derived from the vegetable kingdom, are those called farinaceous ; out of which bread is prepared—a substance not unaptly denominated, the staff of life. This is usually made from some sort of grain ; as wheat, rye, barley, oats, buck wheat, indian corn, rice, &c. ; and it may be prepared from the potato, and several other roots, and even from chesnuts. In all these substances, there is more or less, I believe, of a mucilaginous, saacharine matter, starch, and what is called gluten ; all of which are highly nutritious. Wheat is the most so ; and in general the best adapted for bread. That made from the finest wheat flour, called *whiten* in England, is, however, constipating, and the nutriment rather too much concentrated. If a part, or the whole of the bran be left in the flour, the bread, called in England, *wheaten* and *household*, is, for most constitutions, far preferable. The

* A very common, but pernicious mode of using butter, is to melt it upon hot pudding, or cakes, and then add a large quantity of sugar, or molasses. Either of the latter articles alone is abundantly sufficient.

same is true of other kinds of bread : the coarser sorts being much the best. Brown bread, made of a mixture of wheat and rye, is said to be excellent : and for those in health, that prepared from rye and indian corn, is salutary. That from rye alone, is more laxative than if made from wheat. Barley and oats are scarcely used in this country for bread, though very commonly employed for this purpose in Europe : but such bread is less valuable than that from wheat or rye. Rice and potatoes require the addition of some flour, to render the bread made from them easily digestible.

Leavened, or raised bread, agrees best with most stomachs. Of unleavened bread, the sea biscuit, called also sea bread, &c. and made of flour and water only, is the best ; and is often extremely salutary to the invalid. The bread known by the name of crackers, in this country, is unleavened ; but contains butter to render it light and tender ; and is, therefore, more objectionable ; though certainly not unhealthy. The common biscuit used among us, contains the same ingredient, and is also leavened.

New and hot bread.

There is one rule in respect to bread, in which I believe all physicians agree ; and which nearly all men violate, but which is nevertheless of great importance to the invalid and literary man : viz. not to use bread that is newly baked. Eaten just from the oven, and hot enough to melt the butter that is put upon it, it is lead in the stomach. Yet so depraved are most appetites, so educated to relish unwholesome articles, that the great mass of mankind eat their bread in this very state : and loathe it when it has become stale. The student and the invalid, who habitually take their bread thus smoking from the oven, may be certain, that they are most effectually clogging both mind and body. If they must eat it new, let them take the precaution to

have it thoroughly toasted. Indeed, I believe this is salutary in most cases.*

Cakes, pastry, &c.

Cookery has invented numerous other compounds, whose basis is some kind of flour. I am glad to say, that I am not enough acquainted with Dr. Kitchener's vocabulary, to enumerate the rarer varieties. But those most in use are the various cakes, filled with lard and butter, and then immersed in the same, while cooking over the fire: such as pancakes, slapjacks, nutcakes, &c. which are to be eaten while warm: next come the different kinds of pies or pastry; and last, and worst of all, the pound-cake, sponge-cake, loaf-cake, bride-cake, &c.† All these are so compounded as to tempt the palate, after the stomach has taken enough of other food; and without exception, they are extremely hostile to health and comfort. In this opinion physicians all agree. Dr. Paris, who as a writer on diet, is more favorable to the full liver, than almost any other, and who even seems disposed to yield not a little to the gluttonous habits of the Londoners, loses all patience on this subject. "All pastry," says he, "is an abomination. I verily believe, that one half at least of the cases of indigestion which occur after dinner parties, may be traced to this cause."‡

"Is it good," inquires the Catechism of Health, "to give

* "When it [bread] is new, or recently baked, it is of a glutinous or heavy nature, and extremely difficult of solution. Cases have been recorded, indeed, in which an immoderate quantity of fresh baked bread proved the cause of death."—*Rees' Cyc. Art. Diet.*—*See London Medical Journal for 1781. Vol. I. p. 333.*

† The cakes, or *mustacea* of the Romans, so common after a rich entertainment, were composed of meat, aniseed, cummin, and several other aromatics; and their object was to remove, or prevent, the indigestion so frequent after a hearty meal; whereas most of the cakes of modern times, are, as Dr. Paris remarks, "an excellent invention for *producing* instead of *curing* indigestion."

‡ On Diet, p. 121.

children dainties, cakes or sweetmeats? *Ans.* No. Children are thereby rendered too fond of their bellies, become gluttons, and degenerate from the dignity of their nature.”*

In direct opposition to such advice, it is the practice of very many parents at this day, to suffer their children to cram themselves, particularly at meals, with all the indigestible varieties of pastry, cakes, hot and cold, and sweetmeats, which they use themselves: and when the child is carried abroad to visit a friend, it must be loaded with cakes and confection by the kind relative: And in this way, it is, that we all learn very early to crave rich and stimulating food; and find it so hard to come back again to the plain and simple fare which nature provides and health demands.†

Puddings.

Puddings are among the articles of very doubtful utility for literary men. Those made from bread, or coarse flour, and rice, are the best; those containing suet, the worst. In addition to their indigestible nature, they are commonly eaten quite hot; swimming in butter and sugar, or some other seasoning; and taken after people have eaten as much of one dish as temperance will justify.‡

Fruit.

As to fruit, some sorts are salutary, if fully ripe, and if eaten at breakfast or dinner, as a part of the meal; the other food being proportionally diminished in quantity. The best fruits are apples, pears, peaches, apricots, strawberries, raspberries, oranges, and currants. Cherries, plums, olives, melons, cucumbers, and all kinds of nuts, are very difficult of digestion: and to eat them, as

* Faust, p. 57.

† The different articles on the diet and regimen of children, that have appeared in the Journal of Health, should alone induce every parent to possess that valuable work,

‡ See Note AA,

some do, in addition to a full meal, or between meals, is ruinous to the healthy and poisonous to the invalid. Chestnuts, walnuts, butternuts, filberts, and almonds, are particularly injurious, taken at such times. Not much better are raisins, prunes, figs &c.*

Roots.

Of the esculent roots, turnips, potatoes, and onions, are the best. Dry, mealy potatoes, especially, are capable of sustaining life, health, and vigor, alone, or simply with salt.† The sweet potato, though abounding in nourishment, is less digestible.

From the potato is prepared most of the arrow root of commerce. This is essentially starch, as is also tapioca, sago, and salep. All these are very nourishing and digestible, if eaten with bread: and they are used advantageously by people recovering from sickness.

Pickles.

Pickles are mere vegetable receptacles for vinegar. All the sedentary and literary will do well to let them alone; unless directed to their use by the physician.

Peas, beans, &c.

All vegetables of the pulse kind, of which peas and beans are the most common, are among the most unwholesome articles of diet, for sedentary and literary men; being not only indigestible, but deficient in nourishment.

Salads, &c.

Lettuce, radishes, and most pot herbs, may be occasion-

* See Note BB.

† The introduction and use of the potato into Europe, was resisted for two centuries, by the most violent prejudices. But after Louis XV had worn a bunch of potato flowers in his coat on a day of festivity, the people enthusiastically began to cultivate and use this root.

ally serviceable, in small quantities, to those in health ; but nervous invalids will almost always suffer from their use. Radishes in particular, will answer only for the strongest stomachs. Carrots, parsnips, beets, and cabbage, should be sparingly used, if used at all by such.

Cookery.

By the art of cookery, the different alimentary substances undergo very important changes. These are accomplished by the application of heat and water, or by admixture of different articles. Aliments that are roasted, retain more of their nutritive qualities than if cooked in any other way. By baking and stewing, they do not lose their nutritive qualities, but are rendered much less digestible. Boiling extracts not a little of the soluble nutriment ; and it is said that articles are thus rendered less proper for weak stomachs, than by roasting or baking. Broiling is probably not inferior to roasting in rendering food salutary and nutritious ; and this is the mode of preparing meat for the athletic, while under the training process. Frying is the worst of all the simple modes of cookery ; because it requires the use of oil, or fat, made boiling hot ; and thus rendered empyreumatic. Fried meat is, however, less injurious than fried potatoes, or pudding, for weak stomachs. Of all common articles of food, those that are saturated with butter or fat, while at a boiling heat, are the most pernicious.

Condiments.

These simple processes of cookery are all that are essential to health and happiness. But these do not satisfy the craving appetite of gluttony. Food thus prepared, was soon found, by men in a luxurious state of society, to be too mild, too void of stimulation. The first resort was to the various kinds of seasoning, called condiments. These are of five sorts. 1 The oily condiments ; as oil, butter, cream, and fat : 2 The saccharine condiments ; sugar and honey : 3 The acid condiments ; vinegar and lime juice : 4 The

saline condiments; common salt and nitre : 5 The acrid condiments, or aromatics; including pepper, spice, cloves, nutmegs, cinnamon, &c. Of the first class I have already spoken—Of the second, I would say, that sugar and honey are undoubtedly among the most nutritious of all substances. The nourishment, however, is in too concentrated a state, to be used without a due admixture of bread, or other farinaceous aliment. Hence the nausea and uneasiness that result from eating these articles in any considerable quantity. The acid condiments, of which vinegar is the principal, are undoubtedly serviceable with some kinds of food; and to the healthy stomach; but few invalids can employ them with advantage. Among all these condiments, no one deserves so much to be recommended as common salt. This seems to be universally adapted to promote the nutrition of plants and animals; and the want of it is attended with the most disastrous consequences. One of the severest penalties annexed to the ancient laws of Holland, was, that criminals should “be kept on bread alone, unmixed with salt.” “The effect was horrible: these wretched criminals are said to have been devoured by worms engendered in their own stomachs.” Salt may indeed be used in too large quantities; but there does not appear to belong to it, any of those bewitching properties, that tempt so many to excess in other articles of food and drink.

Salted provisions.

If such be the effect of salt, how happens it that salted provisions are so indigestible; and when used exclusively, produce the scurvy and other painful disorders? In the case of salted meat and fish, it may be replied, there seems to be a chemical change produced in the meat and the fish by their union with the salt, and thus their character, as food, is essentially altered; whereas, salt used as a condiment produces no such change. And although our senses are not aware of such slight differences, yet the stomach is affected by them more than the most delicate chemical test.

On the same principle, although the stomach immediately separates milk into butter and cheese, yet in such cases it digests these with far more facility, than when these substances, artificially prepared, are eaten.

Aromatic Condiments.

The aromatic condiments operate as stimulants upon the digestive powers, and therefore, furnish a temporary assistance to digestion ; just as brandy and wine do. But I cannot see why these aromatics do not prematurely wear out the stomach, just as alcohol does. Let every man, who is fond of stimulating food or drink of any kind, remember, that the momentary strength and comfort which they give, is to be succeeded by early prostration and disease. According to this principle, that literary and sedentary man conducts wisest, who uses least of the aromatic condiments. He, to be sure, will not experience the temporary glow and excitement of one whose system is braced up by a tonic diet : but he will enjoy comfort and serenity of mind, long after the other is in the grave. He must, however, carry out this system, into every part of his diet, to experience such effects. For example, all the compound gravies, and sauces, made up, usually, of a mixture of different condiments, in which melted butter predominates—must be discarded by him altogether. Not that it would be particularly injurious for him to partake of such articles in small quantities, occasionally : but if he partake sometimes, he will never know where to stop. In all cases, therefore, where an article of diet is not necessary for health, or strength, the literary and sedentary should make it a principle to discard it, even from their occasional bill of fare.

Concluding Remarks.

I crave the patience of this audience, while I close the extended view that has been given of the subject of diet, by a few remarks, suggested by all that has been advanced.

Act understandingly and without prejudice.

In the first place, let me conjure you not to reject the great, fundamental, leading principles, which I have advocated, unless you can find authorities and arguments against them, stronger than I have adduced in their defence. I may have mingled minor peculiarities of my own with these principles; and these, I would have you adopt, or reject, according to the evidence. But for the leading principles advanced, I have made my appeal to the highest medical authorities of past and present times, and to the known laws of the human constitution. Now what I request is, that you would not reject these principles until you can find at least as many, and as good authorities and arguments against them, as I have given in their favour. In other words, do not reject them because they are contrary to your own practice and feelings. Go to work as diligently as you please, to study dietetic writers, who have collected together the results of experience on these subjects; and find, if you can, that my views are wrong, according to the testimony of a majority of the ablest of them; and I shall very cheerfully acknowledge my errors: But until you can do this, let not a love of high living, or the sneer of ridicule, persuade you to reject principles which may be your only security against sickness, imbecility, and an early grave.

The Monster, Intemperance.

Secondly; if the principles which I have advanced be correct, we learn that Intemperance is a Monster far more hideous and gigantic in his members, than has been supposed. So frightful are the ravages of intemperate drinking, that men have been led to suppose the whole power of the monster there concentrated: But in fact, this is only one of his paws, which he reaches out from the place of his concealment, in order to seize upon his victims. This subject throws new light into his den; and discovers to our view his other gigantic limbs, and terrible mouth, and mammoth bulk. I bid God speed to the resolute soldiers, who

have gathered around his lurking place, sword in hand, and are attempting to cut off this paw ; which is so busily and powerfully engaged in the work of destruction : Already several of the muscles and sinews have been severed, and the monster begins to feel the loss of blood. The entire amputation will weaken and cripple him still more. But let no man think that the battle will then be over. He will wake up with the power that desperation gives ; and must be met and overcome by the power that religion gives.

Sources of poverty.

Thirdly ; the discussion of this subject shows us how groundless are most of the complaints made in our country, about hard times, the impossibility of paying debts, supporting families, and contributing to benevolent objects. Most of the men, who thus complain, are the very persons, who are expending every year nearly double what is necessary, for unnecessary and highly injurious articles of diet. They can hardly make out a meal, unless three or four varieties of food, and a quantum of the strongest tea, or coffee, are before them. Clogged as they are by this needless extra expense, and incapacitated as they are for the vigorous prosecution of business, by excess in eating, it is no wonder that they find it difficult to keep their expenditures within their income. But let them only adopt those rules of diet, for themselves and families, which experience and the best physicians point out, as most calculated to promote health and happiness, and they would find their temporal concerns most astonishingly blessed. Instead of complaining of the hard times, and the difficulty of supporting their families, they would be continually praising God for casting their lot in a part of the world, where their facilities for obtaining the comforts, and even luxuries of life, are unexampled ; and where by honest industry and economy alone, they can not only do this, but obtain a surplus for meeting in a liberal manner, the various calls, which learning, benevolence, and religion make upon their chari-

ty : and besides this, have something left as a reserve for future exigences.

I am aware, indeed, that it requires the spirit of a martyr, for any individual at the present day, to adopt, and carry through, such a system. Public opinion will ridicule his zeal on this subject as fanaticism, if he be not regarded as deranged ; and his conscientious simplicity of living, will be branded as narrow minded parsimony : and he will be in danger of being cast out, with his family, from respectable and even religious society. His best friends will affectionately urge him not to starve himself and his family, and try to make him believe, that his children will be despised for the peculiarities of their father ; and that as soon as they are out of the reach of his excessive restrictions, they will give the rein to all their desires, and become dissolute. Unless a man, therefore, is prepared to meet all these difficulties, (and nothing but strong religious principle, and daily prayer, can prepare him,) he had better not make the attempt. Alas, how few there are, who aspire to the honor of this martyrdom ! But it will not be always thus.

Means for Benevolent Efforts.

Fourthly ; the discussion of this subject shows us from whence the means are to be derived, for civilizing and Christianizing the world.

They are to result from the prevalence of temperance. In the first place, this will furnish men for the work. When children shall be brought up according to strict temperance, and shall persevere in the same course through life, there will be little more complaint about debilitated constitutions and feeble health : nor will acute diseases but seldom cut down suddenly the most vigorous and useful of men : But they will live until natural decay shall remove them ; that is, at a medium, until seventy years old. Certainly this will add twenty or thirty years to the present term of life : and it will add more than this, to the period of usefulness : because we need not make so much allowance, as we now

do, for sickness and premature debility. The same number of men, therefore, under the reign of temperance, will do much more in the mighty work of renovating the world, than they can do, under the influence of the present habits of society.

Is this all imagination? Or does the language of prophecy teach us the same? Speaking of the latter days, Isaiah says: *there shall be no more thence, an infant of days, nor an old man that hath not filled his days; for the child shall die a hundred years old: but the sinner, being a hundred years old, shall be accursed. And they shall build houses and inhabit them; and they shall plant vineyards and eat the fruit of them. They shall not build and another inhabit; they shall not plant and another eat; for as the days of a tree are the days of my people, and mine elect shall long enjoy the work of their hands.* Certainly this passage describes an important addition to the term of life in latter times: in this world too, because sinners are here spoken of. And if we seek for natural causes to account for such a result, how exactly does temperance answer the requisite conditions.

The same prophet says also, of the Jerusalem, in which the righteous shall dwell in millennial times, that *the inhabitant shalt not say I am sick.* And to produce such a wonderful and most desirable consummation, what else is needed, but the universal practice, of universal temperance!

But the progress of temperance, in respect both to drink and food, paves the way for the progress of true piety. Hence temperance will be the means of qualifying many more young men to be ministers and missionaries. And since its general prevalence will render unnecessary many branches of business, now extensively pursued, more and more youth can be spared for the benevolent work of carrying civilization and science to their ignorant and benighted fellow men.

Money for the work.

Temperance will also furnish the pecuniary means for

this work. Our benevolent societies now find it extremely difficult to procure money enough to carry forward their operations on a very limited scale. But were only their present contributors to adopt the principles of temperance, they might enable these societies to enlarge the sphere of their labors in an astonishing ratio. Admitting that the 800,000 professing Christians in the United States, constitute these contributors, or are equivalent to them as to number, and the following estimate must be regarded as very moderate.

The pecuniary expense of ardent spirit in this country, cannot be but less than one hundred millions of dollars annually. Divided equally upon our thirteen millions of inhabitants, it will give eight dollars to each individual. Suppose that professors of religion expend only one third as much as the average sum for this article; and the 800,000 would, by total abstinence, save \$2,136,000.

Suppose each of these individuals, by reducing the quantity of his solid food one half, could save ten dollars per annum. The whole amount saved would be \$8,000,000. To this ought to be added at least \$4,000,000 more, for the unnecessary dishes, and sweet-meats, cakes, fruits, &c. with which friends and parties are regaled.

Tobacco, cigars, and snuff, at one pound for each individual, (about the quantity consumed in England) and at twenty cents per pound, amount to 160,000 dollars.*

Tea, at one pound for each person, at one dollar per pound, \$800,000. Coffee, at two pounds each, and thirty cents per pound, \$480,000.

The whole amount is not far from fifteen millions; or thirty times more than the income of the charitable and benevolent societies in the United States in 1829. To this might be added, could it be estimated, a large sum, saved by the influence of temperance, from the ordinary expenses of sickness. Another large amount also, for the addi-

* See Journal of Health, p. 27.

tion to life, resulting from the same cause; and the consequent ability to enlarge the pecuniary stock above the present standard. Nor should it be forgotten, that a speedy and natural consequence of rigid temperance, would be, to lead to an immense reduction of those extravagances in dress, furniture, and equipage, which even exceed the excess of Christians in eating and drinking. All these items must more than double the amount mentioned above; which the thorough practice of temperance would set at liberty, for the service of the Lord.

This, then, is the enormous annual tax, which Christians in this country pay, for feeding the maw of intemperance. Let this monster be starved, and all this might go to hasten forward the conversion, civilization, and salvation of the world. Oh, it is a matter of joy, that such vast resources can be poured so easily into the streams of benevolence—making healthier, happier, and richer, those who give; and imparting peace, and joy, and eternal blessedness, to those who receive! And if the present comparatively small number of professing christians in our land, could do so much, what might the great mass of the inhabitants accomplish, were they too, to become temperate and devotedly pious? One hundred millions annually, they could have at their command, by total abstinence from ardent spirit: another hundred by temperance in eating; twenty or thirty, by abandoning hurtful narcotics; and more than double the whole of these items, by a reasonable reduction of extravagancies in dress, furniture, and equipage? Carry your thoughts farther; and suppose these principles of temperance to prevail among all Christian nations; and surely you have the means in your hands for the complete renovation of this wretched world. Yet all this, may Christians hope to see, in millennial times. And who knows, but the temperance movement in our land, is the grand, instrument, which God means to employ, to bring about such mighty and glorious results!

If there be any approximation to truth in these principles

and inferences, Oh, what constraining motives are here presented to the educated youth of our country, to adopt the principles of temperance, in their widest applications ! What a mighty influence upon the destinies of our world, might the youth, even in the literary seminaries in this place, exert, if they could be persuaded, early and effectually, to incorporate these principles with all their habits, and be seen moving on, in an unbroken phalanx, in the holy war against intemperance.* Oh, the light and influence, which they might thus send out into the world, and down to posterity, would not, like other emanations proceeding from a centre, spread and increase in the slow ratio of the square of the distance and the time ; but in a ratio so high, that the quadratics of the millenium could alone express and resolve it.

* Not far from 400 Students, have for several years past, been connected with the College, Mount Pleasant Gymnasium, and the Academy, in this town.

The first of these is the fact that the United States is a young nation, and that its history is a history of growth and development. The second is the fact that the United States is a nation of immigrants, and that its history is a history of the struggle for a common identity. The third is the fact that the United States is a nation of free men, and that its history is a history of the struggle for freedom and justice.

The first of these is the fact that the United States is a young nation, and that its history is a history of growth and development.

PART II. REGIMEN.

LECTURE VI.

EXERCISE : *its comparative importance. Case of Dr. Dwight.*
First—Second—Third—Fourth—Fifth—Sixth—Seventh—
and Eighth Rule concerning Exercise. Conclusion.

Definition.

IN commencing this lecture, Gentlemen, I enter upon the second principal branch of my subject : that is, *Regimen*. I have already stated what I shall consider as included in this term : viz. Exercise, Air, Clothing, Cleanliness, Evacuations, Sleep, Manners, and the Influence of the Imagination and Passions upon health. I am aware that some of these points cannot be arranged under Regimen with logical precision ; and that the term is often used by good writers, to include attention to diet. But there is a convenience in grouping together these subjects under this head ; nor am I without good authority in so doing. Indeed, this term, signifying in general *a rule*, may be applied with a good deal of latitude.

Exercise.

The most important branch of regimen is exercise. And because I have urged the subject of diet with great earnestness and minuteness, let no one conclude that I am about to represent the other means of preserving health and curing nervous maladies, as comparatively unimportant. I have already stated, and I wish to reiterate the declaration, that

attention to diet alone, however rigid, will not avail as a substitute for exercise, or the other rules of regimen; either to preserve health, or to restore it. In many protracted cases of dyspeptic complaints especially, persevering, systematic exercise takes the lead of all other means for recovery; and will succeed when dieting utterly fails. Hence Mr. Abernethy says, "he knows of no remedy for these complaints, but air and exercise."

Case of Dr. Dwight.

To evince the necessity of attention to exercise as well as diet, even for the most vigorous constitutions, we have an instructive example in Dr. Dwight of Yale College, while he was tutor in that institution. He reduced the quantity of food, first to twelve mouthfuls of meat at dinner, and then to the same of vegetable food; his other meals being proportionably light; neglecting at the same time nearly all active exercise. Within a year, his constitution was almost ruined. But by removing to Northampton, and there in the course of another year, taking upwards of 2000 miles of pedestrian exercise, and 3000 of equestrian, his vigor was restored and held out forty years.*

German scholars.

The inquiry will here probably be started, how is it, that many of the German scholars are able to sustain such long continued application to study, with so little exercise? I reply, that their vigorous constitutions, their early training to coarse and temperate diet, their perfect regularity, and perhaps more than all, their climate, do, indeed, enable some almost to mock the rules of regimen: yet probably their application and neglect of exercise have been much exaggerated. At any rate, if Germans can live without exercise, Americans cannot: and he who attempts it, will only add another victim to the long catalogue of those in our

* See Dwight's Life, prefixed to his Theology, p. 13.

country, who have ignorantly or presumptuously tried the experiment, and found, as the consequence, an early grave.* True, they may hold out for a few years; but the seeds of disease are germinating in their constitutions, and will ultimately flourish with fearful luxuriance. The discerning eye reads in the pale and dull countenance of all such individuals, the secret progress of internal decay.

Need of exercise generally admitted.

At this day, however, there is scarcely any individual among the sedentary and the literary, who does not acknowledge, in general terms, the necessity of exercise. Now and then you will find one, indeed, who has the vanity and presumption to believe that he shall not fail, in repeating the experiment of Dr. Dwight; and that his genius is of so extraordinary a character, that it is his duty to devote all his time to study, lest the world should be cheated of some of the fruits of his mighty intellect. Very few also, have any accurate or just notions of the quantity of exercise they need, or of the time and manner in which it should be taken. Hence half enough is not taken; and much of the other half, is productive of injury instead of benefit. We need not wonder, therefore, at the multitude of pale, cadaverous countenances, that are seen at our colleges and preparatory schools.

Object of this Lecture.

My object at this time, is, to collect and define those general rules on the subject of exercise, which the experience of physicians and others have established; or in which the great majority are agreed. There is even less of disagreement on this subject, among those best qualified to judge, than upon dietetics: and, since I need not stop to prove the necessity of exercise, I trust I shall be able to

* Homo edens sanus esse non potest, nisi etiam laborat.—*Hippocrates De Dieta, Lib 1.*

dispense with much of that prolixity which seemed indispensable in treating of diet.

First rule as to exercise.

The first established rule in respect to exercise, is, THAT IT SHOULD BE REGULAR.

Some students think it sufficient, if once a week they break away from their books, and spend half a day, or a whole day, in laying in a stock of exercise for the week. But this will answer scarcely better, than to eat enough every seventh day for the intervening six. Just as the food would oppress the stomach, so will such exercise exhaust, rather than strengthen, all the powers of life. Nature attempts to conform her operations to our habits: and if we make sudden transitions from long repose to protracted muscular effort, she has not become habituated to it, and suffers violence; because she has been endeavoring for some time to accommodate her movements to a state of rest. The processes of digestion, assimilation, and secretion, must daily go forward, in order to keep the system sustained. Now the great object of exercise is, to assist in carrying on these operations: and, therefore, exercise will be needed every day, as much as food.

Exercise on the Sabbath.

Some may inquire, whether it be proper to exercise on the Sabbath: In itself considered, there is surely no violation of the divine command to keep the Sabbath holy, in taking so much exercise, of some kind, as will render a person most fit for a due observance of the day. But if one man is in a habit of riding or walking abroad on that day, however pure his motives, his example may have a bad effect upon those, who do not understand how it is, that he needs exercise, when rest is their surest method of collecting their thoughts and directing their minds to religious objects. Hence the student, and even the dyspeptic, had better make it a rule to avoid, as much as possible, exercise

in public on the Lord's day ; unless medical prescription requires it. As a substitute, they can make some muscular efforts within doors, that will answer the purpose in a measure : These in-door exercises, however, should be of such a nature, as to show that nothing but necessity, or a sense of duty, induces a man to perform them. If a man saw wood, or work at some mechanical art, it gives too secular an aspect to his efforts, and they will have a bad influence upon his family or friends. But if he walk briskly through an open hall, for an hour ; or swing a chair or other weight a hundred times ; every one will see that he does not exercise for the sake of pleasure or pecuniary profit.

Another expedient will help the conscientious man very much in this matter. Let him take a great deal more exercise abroad on Saturday, than on any other day : for although this method will not furnish him with a supply of exercise for the week, yet, if the constitution be accustomed to regular, daily exercise, an increase in the quantity, on the sixth day, will strengthen the system for resting on the seventh. Indeed, the rule, which the Israelites were directed to observe in regard to collecting manna, may be a good one for the Christian, in respect to out-door exercise. They were obliged to collect a quantity of it every morning, sufficient only for that day ; except on Saturday, when they gathered double the usual amount ; and this sufficed them for the Sabbath, although, in any other case, it was good for nothing but a single day.

There is another circumstance of great importance in respect to this point. Let the man who would pass his Sabbath pleasantly and profitably, with little exercise, remember that he should be peculiarly abstemious in his diet on that day, eating much less in quantity, and of less stimulating kinds of food. Nay, some recommend actual fasting as a most valuable means, not only of avoiding the evils I have spoken of, but likewise as purifying the system from the effects of any dietetic excesses of the past week, and strengthening it against any that may be committed during the one

which the Sabbath commences. At any rate, they certainly do not observe this rule, who eat more on the Sabbath than on any other day; which I fear is the case with very many: nor those who live on vegetable food the early part of the day, but devour animal food enough at night to gorge a Polyphemus.

Occasional excursions abroad.

In urging the necessity of regularity in exercise, I would by no means be understood as discouraging the student from the salutary habit of occasionally taking a larger amount of it than is usual; breaking away, for example, for a day or two, from his books, and climbing the distant mountain, or in some other way, escaping beyond his daily circle of occupation and thought. This exerts a most salutary influence upon the system and upon the mind, if not carried so far, and indulged in so frequently, that the control over the mind is lost, and a roving, discontented, indolent disposition is acquired. But a certain amount of daily exercise must not be dispensed with, however frequent these occasional efforts can be made. And ordinarily, it is best, as far as convenient, to devote a certain portion of each day to this object; not suffering any thing else to interfere with, or encroach upon, a period which is probably of more importance to the scholar, than any other part of the twentyfour hours, except his seasons of devotion. Indeed, as old Cheyne has justly remarked, a man should "make exercise a part of his religion." At least, every student ought to make it a point, to fail no oftener in his daily exercise, than he does in his regular meals; since his digestion requires the exercise, as much as his stomach does the food.

Second rule as to exercise.

The second rule respecting exercise, is, that IT SHOULD NOT BE VIOLENT OR EXCESSIVE.

This rule is particularly important for the invalid of delicate habits. Very many such, having heard in general,

that exercise is the grand panacea for the feeble, conclude that the more they take of it, the better. Hence they rouse up from a state of inaction, and exert all their energies at once, until the frame becomes exhausted; and instead of the recovered health and strength which they had expected, they find themselves prostrated by actual disease. Whereas, had they commenced very moderately at first, and every day added a little to the quantity of their efforts, their system would gradually have gained strength and firmness; and ere long they might have performed wonders in their corporeal exertions. The grand point, then, seems to be, to begin moderately, and not to carry exercise so far as to produce extreme fatigue and exhaustion. And yet, do not cease your efforts, until you feel fatigue in a moderate degree.

Caution.

This same caution is necessary for the healthy, who have not been accustomed to much active exercise. Particularly dangerous is this sudden violence of effort in the spring, when the motion of the blood is accelerated by the genial warmth of the season; and when, consequently, too great exertion may produce effects suddenly fatal, or lay the foundation for distressing and incurable diseases. On this ground it was, that Galen, one of the most celebrated physicians of antiquity, inveighed against the Gymnasium: And if caution was requisite in this species of exercise, among the athletic Greeks and Romans, it is certainly not out of place, for the debilitated constitutions and sedentary habits of modern times. I do not condemn this species of exercise, so much celebrated in our day; but I say, that caution should be used in its early stages; and that a student should begin with its most simple and least violent movements, and proceed slowly through the prescribed course. In this way, the constitution may be gradually brought to endure with impunity, the most severe and protracted labors. This is shown by the great hardiness acquired by

those classes in society, who are brought up from their earliest years, in habits of the most laborious industry. The student may sigh because the vigor, which he sees them exhibit, cannot be his : but let him never attempt to compete with it, until he has gone through a similar preparatory discipline.

No excuse for the indolent.

Let not these remarks be misapplied to the justification of the indolent voluptuary, who begins to complain of debility and exhaustion, ere his exercise is well begun ; and who would consider it intolerably cruel, to prolong his walk, or ride, till real fatigue came over him. I am only urging caution at the beginning of a new course of exercise : for when the system begins to feel its bracing influence, it is all important that the quantum be increased, until the healthy medium, between laziness and excess, be attained. In particular, let no one, who has the direction of children, endeavour to curb their natural inclination for active and almost constant motion. Until the age of ten or twelve, they should be permitted to pursue their little sports as much as possible in the open air, scarcely interrupted by tasks of any kind ; and their books, and other means of improvement should be made a part of their amusement. The ambition manifested by many parents, to exhibit their young children as prodigies of learning, and their consequent efforts to confine them to their books for an unreasonable length of time, is generally repaid by sickly boyhood, and bodily and mental imbecility in manhood. But let the child be allowed in its early years to follow the promptings of nature, as far as possible, in respect to exercise, and vigor of constitution, bodily and mental, will be the rich reward. I dwell on this subject, because here is the fruitful beginning of a large part of the feeble health, that now meets us at every corner. Very few mothers have any just ideas concerning the physical education of their children. So fearful are they, lest they should be exposed to the open air,

or should lose their delicate complexions under a meridian sun, or become rude in their appearance by running abroad, or soil their nice clothes in the dirt; that they must be sedulously kept within doors, most of their time; and even there, be restrained from every active movement: and thus, ere long, they become as delicate and white as the porcelain ornaments around them: and almost as frail and void of mind. Alas, this is no caricature: the original is seen on every side: it is seen in the nervous lady of eighteen, and in the pale faced pedant of the literary institution.

Quaint Rule as to exercise.

But my business at this time, is with those, who are acting for themselves, in respect to regimen. And in regard to the extent to which their exercise, while in tolerable health, should be carried, there is rather a quaint rule given by writers, which is not an useless one, viz. "that the lean should exercise *ad ruborem*, that is, till the body and spirits are gently heated; for that will help to fatten them: and the fat, *ad sudorem*, that is, till they perspire: for that will help to reduce them; and consequently extenuate the body."*

Quantity of Exercise necessary.

The third rule on this subject, requires, that LITERARY AND SEDENTARY MEN SHOULD DEVOTE SEVERAL HOURS EACH DAY, TO EXERCISE IN THE OPEN AIR.

The quantity of exercise which it is proper for a man to take, is the most important part of the subject; and yet, it is not possible to be very definite in pointing out that quantity. However, we know that there is danger of erring by taking too little, rather than too much. And the shortest time, which will answer for the preservation of health, is two hours per day in the open air. It is far better to devote three hours to this object: observing the last rule, not

* Sure Methods, p. 100.

to exercise violently or excessively. Indeed, those individuals, who have derived the greatest advantages from exercise, have more commonly extended their out-door efforts, their walks, or their rides, or their gardening, or their herb-oring, to four hours. This has enabled them to walk from 6 to 10 miles; or to ride from 10 to 12: but it is better to limit our exercise by time, rather than by the space gone over; because, by the latter rule, we shall be very apt to compress into one hour, in order to save time, those efforts, which should employ two or three.

These three or four hours for exercise, should not be taken at once; but rather at two or three times during the day; though it is better to have these times fixed, in order to avoid a temptation to omit them.

Students generally exercise much less than the rule requires.

I do not doubt that many who hear me, will be amazed that I make so large a demand upon their time for exercise; and will be conscious, that in times past, they have given only a small moiety of four hours daily, to this object. Nay, it is my belief, that if they were to make an honest confession on this subject, not a few would say, that a hasty movement, three times a day, from their studies to their boarding houses, has constituted the principal part of their exercise, since they commenced study. And they probably fancy, that in this way, they have gained a great deal of time for study, which others have lost in unnecessary exertion abroad: whereas, in fact, they have most unquestionably lost time abundantly. For if there be any fact clearly established, in relation to this matter, it is, that a man, who devotes four hours daily to exercise, will make more progress in study in one hour, than he could do in three, with only one hour's exercise. Without sufficient exercise, the movements of the animal machine are heavy and laboured, and the mind is clogged in the same proportion: and ere-long, both become feeble and inefficient in their operations. The difference, indeed, between the movements of the

mind with, and without exercise, is as great, as between the movements of a clock, clogged and groaning with friction and dirt, and one newly oiled and cleaned; with every pivot, wheel, and pin, in place. The true way, therefore, for a student to gain time for literary pursuits, is to devote, without grudging, these three or four hours per day, to giving strength, and freedom, and lightness of play, to the numberless wheels, and delicate cords, and levers, and springs, that make up his corporeal system. *Aerugo animi—rubigo ingenii*, says Seneca: and Plato calls him a cripple, who, by neglecting this bodily discipline, cultivates his mind alone; suffering the delicate machinery of his system to rust and sink into decay, through sloth and inaction. He may seem to be rearing up a luxurious crop of the flowers and fruits of learning: but he may rest assured, that like the productions of the greenhouse, they will be wanting in just proportions, and in ripeness.

The rule urged.

Again would I repeat, to those who hear me, that to give these three or four hours per day to bodily exercise in the open air, is a point of the last importance to their health of body and mind. Consult the history of the most distinguished literary men that have lived; except, perhaps, that of some anomalous German literati; and you will find that such was their practice; and that they impute to it, their chief ability to accomplish so much as they have done. In vain is it to adhere rigidly to an abstemious diet, and to every other rule of regimen, if this be neglected; for the student has no security against disease and premature debility. Nor, indeed, ought he to expect any sympathy in his fallen state, if he will not listen to the voice of experience on this point. For however various may be the opinions of distinguished physicians and other writers, on other parts of this subject, here, so far as I know, they are unanimous, from Galen and Pythagoras downwards. To disregard their testimony, therefore, is a mark of most

disgusting self conceit and presumption. For any one to do this, who professes to be devoting himself to literary pursuits, for the sake of promoting the Divine Glory, is worse than folly; it is criminal.

How can the rule be observed in our literary institutions?

But I doubt not, that the members of this college, and of most other literary institutions in the land, will enquire, "how is it possible for us, consistently with an attention to the required routine of study, and other indispensable requirements, to find three or four hours each day, to devote to exercise?" I confess I must answer, that I hardly know. In the words of the Secretary of the American Education Society, in his able address on the union of study with useful labor—"the truth is, that the founders and governors of most seminaries of learning have made no positive provision whatever for taking exercise. Their laws and regulations are silent in regard to it"—I fully agree with him also, in saying, "there must be a change in this respect. Instructors and overseers of literary and professional schools, must give to exercise a *prominent* place: they must make room for it in the regular employments of each day; and throw the whole weight of their influence into the scale in favor of it."*

First plan for removing the difficulty.

Does any one enquire, how college duties could be so arranged, as to accomplish this important object? I reply, though diffident of my opinion, in either of the following modes.

Retaining the present number of exercises per day, I would have morning prayers at 5 o'clock in the summer, and at 6 o'clock in the winter; and breakfast an hour afterwards—the intervening period being allowed for exercise. Immediately after breakfast, or from 7 to 8 in the

* Quaterly Register, &c. No. X. p. 60.

summer, and from 8 to 9 in the winter, I would have the first recitation: then an hour for exercise; then study hours, from 9 to 11 in the summer, and from 10 to 12 in the winter: then a second recitation, from 11 to 12 in the summer, and from 12 to one in the winter: next the dinner hour from 12 to one in the summer, and from one to two, in the winter. From 2 to 5 in the afternoon, should be study hours, in the summer; and from 2 to 4 in the winter: the hour from 4 to 5 in the winter, and from 5 to 6 in the summer, should be devoted to exercise: evening prayers at 6 in the summer, and at 5 in the winter: tea immediately following: then recitation commencing at half past 7 in the summer, and at half past 6 in the winter. From 8 to 9 in the winter, a study hour. This plan provides for three periods of exercise, during the day, of an hour long; and at the most favorable seasons in the day.

Second Plan.

The other plan proceeds on the supposition that only two recitations be required per day—prayers and meals being at the same times as mentioned in the first plan. The first recitation should come in after breakfast, as in the first plan, allowing an hour and a half for its duration; the second recitation immediately before evening prayers; occupying, also, an hour and an half. Dinner at 12 through the year: hours of exercise, before breakfast, immediately after the forenoon recitation, and after tea in the evening. Study hours to commence in the afternoon at 2, and continue till recitation: from 8 to 9 in the evening, in the summer, and from half past 7 to 9 in the winter, might be study hours.

I am aware that neither of these plans is free from difficulties and inconveniences. But it seems to me to be a settled point, that some change must be effected in our colleges, in respect to the time allotted to exercise. I cannot believe that the guardians of these institutions will rest satisfied with the present system much longer. A correct

public opinion is beginning to form on the subject, which must be regarded. And who, in the community, are more likely to adopt any regulations, which reason and experience call for, than the high minded and liberal men, who make laws for our literary institutions? I have no prejudice in favor of the plans I have suggested: I only say, let us have something, which will give to every student the most favorable opportunities for deriving the greatest possible advantages from exercise, so that he can blame no one but himself, if he neglect them. Almost any system that can be proposed, has fewer difficulties, and objections than that which prevails, I believe, in at least all the New-England Colleges: and therefore, my conscience would not rest easy until I had borne testimony against it. But until it shall be altered by the proper authority, we are all bound, I say, to submit to it. We may reason and petition against it; but let no man lift a finger of rebellion, to throw it off violently. Even while it is in operation, students can so manage their time, as to find three or four hours daily for exercise; though not I confess, at the most favourable period. But let them make strenuous efforts for doing this, and they will find their reward to be most ample.

The fourth rule respecting exercise, is, that IT SHOULD PRECEDE, RATHER THAN FOLLOW, MEALS.

This rule is as old at least as Hippocrates; for we find him saying, *ὁ πονος σιτον εγγεσθω*—let exercise precede food. The other ancient philosophers, whose views in general, were much more correct, concerning diet and regimen, than on most other subjects, understood this principle. At least, an extract from Cicero will show that the practice of Socrates was conformed to it—*Socratem ferunt, cum usque ad vesperem contentius ambularet, quaesitumque esset ab eo, quare id faceret, respondisse, se, quo melius coenaret, opsonare ambulando famen.**

* Tusc. Dis. L. 5.

Practice of animals.

The practice of nearly all animal nature, bears testimony in favour of this rule: for most animals indulge in rest, if not in sleep, immediately after eating. And such rest greatly assists the work of digestion. The experiment was tried upon two dogs, that were fed with equal quantities of food. One of them was immediately taken to the chase, and the other suffered to lie down in his kennel. After a little more than two hours, both were killed; and while digestion had hardly commenced in the stomach of the dog that had been violently running, in the other, it was almost completed, so far as the stomach is concerned. Every man, also, must have noticed, that when called to exercise violently, immediately after a full meal, particularly after dinner, the digestive process has been greatly impeded. The same effect likewise follows upon vigorous mental efforts, soon after hearty meals. Moderate exercise, however, at that period, is not much injurious to the healthy: and the experiment with dogs only shows, that violent exercise is injurious. On the other hand, the constant practice of the active classes in society, who return to their tasks soon after the heartiest meals, proves that moderate systematic exercise is not to them very injurious; though sedentary, and particularly feeble persons, should be cautious in drawing inferences as to what they can do, in respect to eating and drinking, from the habits of those, whose employments are calculated to invigorate their digestive and assimilating powers; and concerning whom the dyspeptic cannot but often exclaim with Horace;

O dura messorum

Ille!

Upon the whole, we may conclude, that every literary man should endeavor to gain a few moments, at least, immediately after eating, for rest of body and mind: to the invalid this is indispensable. It is more important after dinner, than other meals, because the others are, or ought to be,

comparatively light. Yet if we have not overloaded the stomach, we need not greatly fear, if called forthwith to moderate exertion; though all violent efforts are then undoubtedly injurious. But habit, in respect to moderate exercise after eating, will do wonders; and in most cases, that drowsiness and indisposition to exertion, which are felt after meals, result from excess in quantity or quality: Indeed where we cannot account for this state of feeling from previous fatigue, we may be sure this is the cause.

Best time for exercise.

A few hours after eating, however, when the food has passed from the stomach and small intestines into the blood, an instinctive desire for exercise succeeds; and that is the fittest period, both for bodily and mental effort. Hence the reason of the rule under consideration. In the morning, before breakfast, in the forenoon before dinner, and previous to tea, are therefore the very best times that we can devote to exercise: and we ought not to suffer the fact, that these are also the best periods for study, to induce us to monopolize for the mind, the whole of that time, which Providence intended should be divided between the mind and the body. If we do, we may rely upon it, that the body will ere long claim its dues with compound interest.

Caution to invalids.

Persons of very feeble health, however, ought here to be cautioned against too protracted efforts in the morning. An hour previous to breakfast is abundantly sufficient for such to spend in the open air: and indeed, in some cases, the physicians will advise, that exercise at this period be wholly omitted. The healthy, and even the invalid who is well enough to be comfortable, however, need not fear the morning air, even at the earliest dawn; nor need they fear occasionally to protract their morning walk beyond an hour. The bracing influence of morning air, has always been celebrated; but not overrated. It is nature's grand restora-

tive tonic ; and ordinarily the only one that should be used by the nervous invalid.

Exercise after breakfast.

Immediately after breakfast, is no very unseasonable time for exercise, where, as in our colleges, the hour previous is devoted to other duties. Indeed, in summer this is a far better time than the hour just before dinner. For the oppressive heats of the middle of a summer's day, should if convenient be avoided. At this season too, a walk after tea is preferable to mid-day exercises, if it be not prolonged into the damps and chills of the evening, which are even worse for the health, than the burning heats of noon.

From this view of the subject, we see that the old poetical rule, as to exercise and rest, has some foundation in truth :

After dinner, sit awhile ;

After supper, walk a mile.

It ought to be remarked, before proceeding to the next rule, that exercise before meals, particularly if it have been fatiguing, ought not to be protracted to the moment of sitting down to our food : because all exhaustion of the system, renders the stomach incapable of grappling with food. It is well, therefore, to rest for a short time previous to eating, if one be fatigued ; though it is the invalid, who is chiefly concerned in this remark.

Exercise with an object, and natural history, recommended.

The fifth rule recommends that SOME INTERESTING OBJECT OF PURSUIT, OR AT LEAST, HARMLESS DIVERSION, BE ASSOCIATED WITH OUR EXERCISE.

The man who goes abroad to his exercise, as to an unpleasant task, who does it merely because he thinks he cannot live without it, might as well cleave to his study, till he became fixed to the spot, like a zoophyte. "Task exercises," says a lively medical writer, "under which denomination may be included all those which are resorted to

merely for the sake of muscular exertion, bear pretty much the same relation to health, as the castigations of the penitent do to piety or virtue."* The fact is, the mind must be turned off from its ordinary routine of thought, at the same time that the body is put in motion, or the latter will receive very little benefit. The mathematical or metaphysical chain of reasoning must be thrown aside when a man leaves his study, as much as his books on these subjects; and amusing, and altogether different ideas, must succeed—ideas that neither pall by their dulness, nor fatigue by their abstruseness. Hence the great advantage of an agreeable friend, to attend us in our exercise; one who will divert by the versatility of his mind, not one who will harrass us by starting and following out some difficult discussion. Hence too, the advantage of so arranging our walks or rides, as to present before us the greatest possible variety of objects, that will be likely to produce the quickest succession of heterogeneous ideas. Hence a great advantage in riding over walking. Hence too, the solitary wood is one of the most unfavorable places for exercise; though it may be the most favorable for serious and profound thought. If, however, a man have a taste for natural history, no solitude, no desert, no mountain, can he traverse where he will not find variety enough to excite a continually renewed interest; and that too, of the most lively, though not agitating kind. And here, in my opinion, is one of the greatest advantages resulting from a taste for this pursuit, among literary men. So numerous and varied are the minerals, plants and animals, that it will require many years, before they will all become so familiar as to cease to amuse and instruct. And that interest, when it is awakened in the bosom, is of the most absorbing kind; so that even the sluggish invalid will entirely forget his maladies, as he is hurried on by the spur of curiosity, through the deepest glens and morasses, and up the most craggy mountains.

* See Journal of Health, p. 151.

The dyspeptic here forgets his stomach and his forebodings, and not a few of such have I known brought back to life and usefulness, by these pursuits, after years of prostration and misery. I hope therefore, it will not be imputed to undue partiality for my department in this Institution, if I urge the cultivation of a taste for natural history, as one of the effectual means of rendering exercise salutary; and thus preparing the man for more vigorous mental efforts. I might urge it on the ground of the pleasure it affords, were I to permit my own experience to be judge: for I can truly say, that during many years of feeble health, no pursuit of a merely worldly character, has afforded me such real, unmixed enjoyment, and none appears upon the retrospect, so innocent and delightful, as the many hundred rambles I have taken, through every variety of soil and location, in the prosecution of these studies. And often in the warmth of my enthusiasm and delight, have I expostulated in the language of Beattie, with those who could see no beauty, and derive no pleasure, where I was continually feasting:

“ Oh how canst thou renounce the boundless store
Of charms, which Nature to her votary yields!
The warbling woodlands, the resounding shore,
The pomp of groves, and garniture of fields;
All that the genial ray of morning gilds,
And all that echoes to the song of even,—
All that the mountain’s sheltering bosom shields,
And all the dread magnificence of heaven;
Oh how canst thou renounce, and hope to be forgiven !”

Gardening.

For those who have little relish for these pursuits, however, no mean substitute is the cultivation of a garden; in whose neatness and beauty they can take an interest. The operation of digging is said to be peculiarly favorable to health. And who is there that cannot find a spot large enough to exhibit his ingenuity and taste, in planting, dressing, and pruning, those vegetables that are useful, and those

that are ornamental? In other countries, particularly England, the poorer classes fill every nook with flowers, that spread an air of freshness and contentment around their cottages, which is rarely seen in our country; where, in fact, very many more comforts are within the reach of poverty. By not improving this innocent source of happiness, our poorer classes are very apt to be inferior, in point of correct taste, to the European peasants. For even literary men would find the cultivation of a garden, no contemptible means of improving this faculty.

Prescriptions of the ancient physicians.

So thoroughly convinced have physicians always been, of the necessity of having some object to divert the mind during exercise, that they have resorted to various methods to accomplish it. Hippocrates used to require of his invalid patients, that they should go from Athens to Megara, for no other purpose than to touch the walls of the latter place; and this doubtless better than to send them abroad with nothing in view, but the recovery of health; an object seldom attained, until the person's attention can be diverted from it. Dr. Johnson recommends, from his own experience, a long journey through an interesting country, without having the particular route, or direction, previously marked out: He would have the traveller direct his course by convenience and inclination; and remain no longer in a place a moment after its objects cease to interest him. By such a journey, with two other invalids, of 2500 miles, he succeeded in raising himself from the lowest depths of dyspepsy, and cured his companions. And if the rule we are considering be correct, his advice to invalids in this respect, is most judicious. The good effects of most journies are lost, by hurry, anxiety to reach the end of them, and the want of something to enliven the attention, and divert the mind by the way. And thus it happens, that journeying, one of the most effectual of all means for the recovery of health, and for giving fresh vigor to the healthy,

so often merely exhausts the vigorous, and wears out the invalid.

Anecdote of Sydenham.

An amusing story is told of Sydenham, a celebrated English physician of early times, illustrative of the principle under consideration; without intending, however, to justify the palpable falshood which he thought proper to employ. He told a wealthy patient, long under his care, that he could do no more for him; but that a certain Dr. Robinson, at Inverness, several hundred miles distant, was remarkably successful in such complaints. Away went the invalid, flashed with the hope of seeing Dr. Robinson. But to his utter dismay, no one at Inverness had ever seen, or heard, of such a physician. Full of indignation, the gentlemen returned to vent his wrath against Sydenham; which was expressed in no very measured terms. "Well," replies Sydenham, "are you in better health?" "Yes, I am perfectly well: but no thanks to you!" "No?" says Sydenham, "but you may thank Dr. Robinson for curing you—I wished to send you a journey with some object of interest in view; I knew it would be of service to you: In going, you had Dr. Robinson and his wonderful cures in contemplation; and in returning, you were equally engaged in thinking of scolding me."*

Task Exercises.

It may be thought that the rule under consideration opposes the practice in some literary institutions, of requiring the pupils to take a certain amount of exercise each day, under the direction of an instructor; and this is a correct inference, if those task exercises cannot be made interesting. If the youth is stimulated to engage in them, simply through fear of censure, or punishment, the grand object certainly is nearly defeated: and I presume that the bet-

* Paris on Diet, p. 194.

ter way would be, to subject such a one daily, to a specified number of stripes upon his naked back—not by way of punishment, but as a substitute for the gymnasium, or the ride; because the whipping would undoubtedly do him the most good, by exciting a strong interest in his mind to know how he should be revenged: and probably too, such a castigation, for a youth of such a disposition, would not be undeserved, about as often as once a day.

But I believe that the difficulty under consideration, is scarcely found to exist in those flourishing Gymnastic Institutions, that are springing up on every side. The instructors find it not difficult, by introducing variety and innocent amusement into their exercises, to awaken a lively interest in the breast of every youth, who has mind and curiosity enough to be worth educating. Whether task exercises can be profitably introduced into our Colleges, and Theological, Medical, and Law schools, admits, I think, of serious doubt.

These remarks suggest a sixth rule of exercise; that
SEDENTARY PERSONS SHOULD INTRODUCE INTO IT AS MUCH VARIETY AS POSSIBLE.

To render exercise appropriate during health," says a dietetic writer, "it is necessary that motion be communicated to every part susceptible of it; that the breast be dilated beyond the usual bounds of rest; that all the muscles attain the utmost degree of their extension and contraction; that strength of course be exerted, and enjoy all its developements." Now there is probably no one kind of exercise that will accomplish all this; unless it be, perhaps, the whole series of movements, usually denominated gymnastic. Hence we should seek such a variety as will embrace the necessary conditions. Such variety will also tend very much to excite fresh interest, and more effectually turn the current of thought into new channels; and thus assist in an observance of the last rule. Considerable variety will likewise be necessary, to enable a person to exercise in all kinds of weather. On all these accounts, every

student should contrive to have within his reach, a number of kinds of exercise ; so that he may be sure of being able to use some one of them, in any situation in which he can be placed. There is, indeed, as a general fact, a decided advantage in some varieties of muscular effort over others. But the very poorest of them is better than none ; or as Seneca says :—*Praestat aliud agere quam nihil*.* I have only time to glance at some of the principal modes of exercise within the reach of literary men, with their most important characteristics.

Kinds of exercise.

Exercise is of two kinds, in respect to the mode of taking it ; viz. passive and active. In passive exercise, the person is put in motion by other powers than his own ; and it embraces the different modes of riding, sailing, swinging, &c. In active exercise, a person depends upon his own muscles to put him in motion. The best of the first class, is riding horseback ; for this combines many of the advantages of active and passive exercise. Indeed, where it can be borne, it is probably of all exercise, the best for invalids. By persevering in it for a long time, several distinguished physicians are of opinion, that a fixed pulmonary consumption has been cured. The feeble person, however, must commence this exercise with much caution ; gradually increasing in quantity and speed, as his strength will bear : though probably very violent horse riding, is never as serviceable to sedentary men, as a more moderate pace, long continued.

Riding.

Riding in a pleasure carriage, particularly one that is closed, is one of those methods, which modern luxury has invented, for preventing the good effects of journies. The very persons, who are able to ride in this manner, are

* * The Manual for Invalids, p. 34,

such as need, above all others, to use their limbs *ad sudorem*. In bad weather, especially, when every shutter is closed, the air within soon becomes absolutely unfit for respiration. Yet riding in this manner, is what people of wealth and fashion, particularly in cities, call *taking the air*. It is, indeed, taking such air, as will soon kill a man: and to pleasure carriages of this kind, physicians impute not a little of the bad health of cities. Lord Monboddie, author of the *Ancient Metaphysics*, would never enter a carriage, even in the severest weather; though he annually rode on horseback from Edinburgh to London, and took other long journies. He died at the age of ninety; and long after seventy, found himself as vigorous as ever.

The small one-horse waggon, used so much in New England, are not liable to the objections above mentioned: and next to riding horseback, they doubtless furnish the healthiest mode of carriage exercise. Riding in a sleigh, can hardly be called exercise: and hence those who practice it, are usually as much chilled, as they would be, by the northwest wind of a New England winter, if sitting still the same length of time, fairly exposed to it.

As to swinging, sailing, &c. they are often servicable for the invalid; but the want of the muscular effort attending them, is a great objection to their use by the healthy, except for the sake of variety.

Walking.

Of all active exercises, fortunately the very best can be taken by those in health the most easily. This is walking. Comparing it with riding horseback, the rule is this: riding is the best for regaining health, walking for retaining it. The pace in walking should be steady and regular, but not quick and violent; and ground that is hilly, is better than a plain, to pass over. In the summer, morning and evening are the proper seasons; but the middle of the day should not be taken for this purpose.

Students usually lose a very important advantage, which they might derive from journies on foot, by throwing themselves into a stage coach, at the close of each term, and riding day and night, until home be reached. Whereas, could they control their home-sick feelings enough, to set out moderately on foot, and take the proper amount of rest and nourishment on the route, they would find their self denial most amply rewarded by invigorated health and spirits. But so seldom do literary men take journies on foot, in our country, that it is the general impression, that all who do it, are obliged to take this course on account of their poverty: and hence, at the public houses, they will not receive as good attention. A respectable English traveller recently mentioned to me his surprise and mortification at finding such a feeling among us; whereby he was deprived of much of the pleasure and profit of his tour.

I have already spoken of gardening, as an excellent species of active exercise during the summer. In winter, cutting, sawing, and splitting wood, are a tolerable substitute.

Gymnastics.

Gymnastic exercises I have already noticed. With the precautions that have been mentioned, the system is certainly extremely valuable. True, some in ancient, as well as modern times, heedless of these precautions, or ignorant of them, have ruined their constitutions: but ten times more saved themselves from miserable health and premature decay, by a resort to these exercises. They were the principal means of saving Cicero from the grave, when reduced by a stomach complaint, to a state of great debility. He went to Athens, and there in the gymnasium, became firm and robust, and acquired a sweetness and firmness of voice, to which he had before been a stranger. By military gymnastics, that is, long marches, coarse diet, and long exposures in the open air, Julius Cæsar threw off the epilepsy, headach, and an effeminate delicacy of habit. In a similar way, might most of the pale faced, nervous, unhappy deli-

cates of modern days, be invigorated and healthful. *Calisthenics* (the classical name for female gymnastics,) would be the most effectual means ladies could employ, for giving freshness and fairness, and a rosy glow to their countenances, and permanent vigor to their constitutions. But so long as they will persist in tight lacing, sipping strong green tea, late hours, and neglect of vigorous exercise, they must expect that the rose will leave their cheeks, firmness of muscle and strength their limbs, and that squalid, or haggard, or pimpled faces, irritable tempers, and melancholy hours, will be their inheritance. Domestic cares and labours ought also to be included in *Calisthenics*: and should the articles and employments described by Solomon, in the 31st Chapter of Proverbs, be substituted in the place of stays, corsets, and easy chairs, we should hear little more of dyspepsy, twisted spines, or any other part of the vocabulary of modern, fashionable, female complaints. But until some change of this kind does take place, Spartan mothers will be rare, and Spartan children rarer.

Mechanical Arts.

Of all the exercises taken within doors, active, mechanical labour, is probably the best. During a considerable portion of the year, the workshop may be so ventilated, that in fact the labor will be performed in the open air. When this cannot be done, the labors of the workshop should by no means be substituted for all exercise abroad. This kind of muscular effort, however valuable as an auxiliary, must never be considered as precluding the necessity of other exercise. Other exercise may, indeed, be necessarily associated with it; either by removing the workshop to a considerable distance from the study, or by making its labors interchange with agricultural pursuits. Such a plan is now, as you know, adopted at several seminaries in the land, and with the most flattering success. The few mechanic shops, fitted up in this College, several years ago, have not been multiplied, from a want of means, and not

from a conviction of their inutility.* I am satisfied that it is important, such a plan should be adopted in nearly every literary institution; and not only this, but the means for every variety of exercise should be accumulated around them, that every student may consult his own taste, as to the kind; and thus be induced to save himself from debility and *ennui*. I would not even exclude some military exercises; such as marching, the use of the broad sword, the erection of small fortifications, &c. The different games too, which are not linked, as several of them are inseparably, with immorality, should not be excluded. In short, I would endeavour to make every literary seminary, a University, as to exercise: so that no student should have any excuse for neglecting to strengthen his physical, as well as mental energies. Even in the most inclement weather, there should not be wanting the means of exercise: for if a man can not exercise, neither ought he to study.

Flesh Brush.

Friction with the flesh brush, is another in-door exercise of great utility. It has often done wonders—Cicero found it among the best means he used for the restoration of his health: and the ancients generally valued it so highly, that they would not pass a day without it. And among the moderns, its reputation stands equally high. It should be practiced about half an hour, morning and evening.†

Exercise of the voice.

Literary men should by no means neglect training the voice, and strengthening the lungs, by reading aloud, for an hour or two daily. This practice gives strength also to

* Only two rooms in the basement story of the Chapel building have been devoted to this object; and these, it is but justice to say, were fitted up at the suggestion of Prof. Abbott in the year 1826; earlier, I believe, than any similar effort in this country.

† Note C. C.

the stomach, and wonderfully invigorates all the organs of the chest. The great men of antiquity understood this, and adopted the practice. *Mox orationem Graecam Latinamve*, says Pliny, *clare et intente non tam vocis causa, quam stomachi lego, pariter tamen et illa firmatur.*

A seventh rule I have to mention on this subject, is, that CARE SHOULD BE TAKEN, ON A CESSATION FROM EXERCISE, TO PREVENT A SUDDEN SUPPRESSION OF THE PERSPIRATION.

Bad practices.

Some will throw themselves upon the damp ground, or take a station at a window, in a current of air, without any additional clothing, immediately after the most violent efforts. Such persons need not wonder, if stiff limbs, rheumatic pains, and severe catarrhs, follow: they may, indeed, think it strange, if they escape without something more serious. They may suppose themselves, in this way, to be hardening their constitution; but in fact, they are breaking it down. Nature will not bear these violent efforts. Even if they could bring themselves to endure with impunity such exposures; yet it could be effected only by a long course of training: even then, it would be hazardous. The better way is to throw on an additional garment for a short time, after violent or long continued exertion; or to continue to exercise less and less violently, until the system is reduced to its natural condition.

Finally, we should consider it an important rule, NOT TO ATTEMPT TO MAKE EXERCISE A SUBSTITUTE FOR ATTENTION TO DIET.

Case in which study should be abandoned.

It is true, that vigorous exercise will, in a measure, counteract the bad effects of excessive eating. But in order to accomplish this object, a student must give up study. If he does not join temperance to exercise, as Cheyne says, "the evil will be as broad one way, as it is long the other. For since exercise will create a greater appetite, if it is indulg-

ed to the full, the concoctive powers will be as unequal to the load as they were before.”* A single ounce of food too much, taken into a weak stomach, will require a half day’s vigorous exercise, above what would otherwise be necessary. The student, therefore, who cannot confine himself to a temperate diet, had better make up his mind to abandon study altogether ; and become a farmer, a carpenter, a sailor, a soldier, or any thing else, that will require him to exercise severely from twelve to sixteen hours per day ; and then he can, with comparative impunity, enjoy the luxuries of a glutton. If all the use he makes of the vigor and good appetite produced by exercise, is, to furnish an excuse for eating to excess, he never will accomplish any thing in literature or science ; and the sooner he exchanges the *toga literaria* for the frock, or the apron, the better.

Melancholy reflections.

Such are the principal rules of exercise, by which the most distinguished philosophers and literati of ancient and modern times, have been able to sustain their health and vigor, under the most severe and long protracted mental efforts. Had they neglected these rules, their names would never have come down to us, encircled with such halos of glory ; but one line would have told their whole history—*premature decay—an early tomb*. And it is painful to look around upon the rising ranks of our literary youth, and to be compelled to believe, that this line, will be all that will be written on the monumental stone of very many, who are disregarding these same rules. It would not be so painful a thought, did we not know, that many of these have higher aims than to wind the wreaths of knowledge around their brows : aims, which look only to the glory of God, and the welfare of their fellow men. For this purpose they have left other pursuits, and are toiling day and night over their books : but alas, they know not the terrible disappointment that

* Essay of Health and Long Life, p. 100.

awaits them, unless they wake up from their bodily inactivity, and vigorously cultivate their physical, as well as intellectual faculties. O, that I had the power to break the delusion, that surrounds them; and could thus be the means of saving some powerful minds, and honest, holy hearts, from being buried under the rubbish of a ruined frame! In the language of the ablest medical men, I would say to them: "Throughout all nature, want of motion indicates weakness, corruption, inanimation and death. Trenck in his damp prison, leaped about like a lion, in his fetters of seventy pounds weight, in order to preserve his health: and an illustrious physician observes, "I know not which is most necessary to the support of the human frame, *food or motion*." Were the exercise of the body attended to in a corresponding degree with that of the mind, men of great learning would be more healthy and vigorous—of more general talents—of ampler practical knowledge—more happy in their domestic lives—more enterprising, and more attached to their duties as men. In fine, it may with much propriety be said, that the highest refinement of the mind, without improvement of the body, can never present any thing more than half a human being."*

"A man," says Sir William Temple, "has but these four things to choose out of—to *exercise* daily, to be very *temperate*, to take *physic*, or to be *sick*."

Story of Ogul.

Finally, if the student cannot be persuaded to use proper exercise in any other way, I could wish him to be made the subject of a deception, amusingly described by Voltaire. "Ogul," says he, "a voluptuary who could be managed with difficulty by his physician, on finding himself extremely ill from indolence and intemperance, requested advice: "Eat a Basilisk stewed in rose water," replied the physician. In vain did the slaves search for a Basilisk, until they met Zadig, who approaching Ogul, exclaimed, "behold

* Journal of Health, p. 85. vol. I.

that thou desirest ;” “but my Lord,” continued he, “it is not to be eaten ; all its virtues must enter through thy pores ; I have therefore enclosed it in a little ball blown up, and covered with skin : thou must strike this ball with all thy might, and I must strike it back again, for a considerable time ; and by observing this regimen, and taking no other drink than rose water, for a few days, thou wilt see and acknowledge the effect of my art.” The first day Ogul was out of breath, and thought he should have died from fatigue ; the second he was less fatigued, and slept better ; in eight days he recovered all his strength. Zadig then said to him, “there is no such thing in nature as a Basilisk ; *but thou hast taken exercise and been temperate, and hast therefore recovered thy health.*”

LECTURE VII.

Air. Clothing. Cleanliness. Evacuations. Sleep: 1. The proper time for sleep; 2. the proper quantity; 3. the means of promoting it. Manners. Influence of the Imagination and Passions upon Health.

GENTLEMEN,

Intimately connected with the subject of exercise, is that of

AIR.

Indeed when urging the importance of spending at least two hours each day in the open air, I have anticipated the most important part of this subject. A few things, however, ought to be added.

Pure air.

The clear dry air of the country, such as we breathe in this land when a mild westerly breeze prevails, is the natural state of the atmosphere, and most conducive to health. Indeed, who does not immediately feel its invigorating influence? It then consists of about 79 parts of nitrogen, and 21 of oxygen.

Bad air—evening air.

The agents that contaminate this air, are an excess of moisture, carbonic acid, and the various vegetable and animal miasms arising from putrefaction.

During clear days the sun dissipates the excess of moisture, which rises by evaporation from the land and the water. But at night it accumulates; hence the proverbial

unhealthiness of the night air. To avoid this, should be a grand point with the invalid ; or if exposed to it necessarily, it is folly not to protect himself by an additional garment. The healthy too, should always be on their guard against the damps of the evening ; as no constitution can harden itself against their morbid influence. In hot climates such exposure is the height of presumption ; and in our climate, those mild and balmy evenings, which most tempt the student abroad, and induce him to saunter by the way, or to sit down under the open sky, are usually the most dangerous. A notion prevails with some, that fearless and unprotected exposure to evening air, is the way to become hardened against its influence : whereas, he is best prepared to resist it, who by temperance and vigorous exercise during the day, has imparted a healthy tone to his constitution.*

On the same principles, exercise abroad in the day time, in damp, foggy weather or in low plains, is not as good as that taken under a clear sky, and on moderately elevated ground. The damps of the morning, however, are not injurious to those in tolerable health : on the contrary, exposures then are less often followed by colds, than at any other time of the day ; and indeed there is very little weather during the day, so unfavorable, as to justify the omission of the stated out-door exercise.

These same principles show us the importance of having our studies, our dwellings, and our sleeping apartments, in airy and dry situations, where they can be frequently ventilated. And if Providence should make it our duty to spend our lives in a low and marshy region, our only security lies in most vigorously adopting those rules, which serve as a security against the damps and putrid miasms that surround us.

* See Note D. D.

Crowded rooms.

By breathing, each individual renders a gallon of air unfit for respiration again, in about a minute: that is, he consumes its oxygen, or vital principle. Hence the reason why close rooms filled with people for some time, are so injurious. A hall 30 feet long, 25 broad, and 30 high, containing 22,500 cubic feet, would not permit a hundred people to remain in it more than four and a half hours; twice that number could remain in it only half the time. Hence we see the reason why theatres, ball rooms, and, indeed, any public places of meeting which continue several hours, are so injurious to the health. And the danger here is greatly increased, by being so much hidden: for the person perceives little more than slight debility or headach, even when serious mischief has been done to his health. The same is true of air rendered irrespirable by the burning of charcoal in close rooms—a cause that yearly sends not a few out of the world, and debilitates many more.

* It is the opinion of respectable medical writers, that the reception of other deleterious gases into the lungs, such as sulphuretted and carburetted hydrogen, exerts more influence upon the health than is generally imagined, by actually poisoning the blood.*

Unhealthiness of large towns.

These various circumstances are the cause why cities and large towns are so much more unhealthy than the open country: for they are all operating more or less, in such places; though other circumstances must doubtless be taken into the account. In England the annual proportion of deaths in the large towns, is not far from *one in twenty*; in moderate towns, about *one in twentyseven*; and in small villages and the open country, about *one in fortyeight*.† In this country, the difference is not so great.

* See the Manual of the Invalid, Chap. IX. Also Paris on Diet, p. 141.

† Sure Methods, &c. p. 107.

The chlorides.

For destroying the putrid and contagious effluvia of the rooms of the sick, and indeed, of every other place, the chloride of lime, a substance lately discovered, and mentioned in a former lecture, is by far the most effectual; and as it can be most easily and safely applied, no educated man ought to be ignorant of its uses. It can now be easily obtained at the shops of our apothecaries, with directions how to employ it.

CLOTHING.

Clothing is another point in a system of regimen, that deserves attention; especially as there are erroneous notions prevailing on the subject. Some sedentary men are engaged in the Quixotic scheme of hardening their systems by reducing themselves almost to nudity in the winter.* But even if they could succeed, it is doubtful whether it would not be at the expense of life: that is, they would probably shorten life. For it is certainly plain, both from the nature of the case and from the Bible, that men were intended to use clothing. They are the only species of animal that is not naturally provided with clothing. The only question is, how much they shall employ. And my answer is, enough to keep them warm. For this is the chief object of clothing. And of what service is it, except merely for decency's sake, to wear clothes at all, if this be not accomplished. To effect it, will of course require a great variety in the articles of dress, according to the age, constitution, state of weather, the health, and the season of the year. But the man whose clothing is so thin that he is shivering with the cold most of the time, may be sure that he is injuring his constitution, instead of hardening it,

* "It is absurd to endeavor to inure one's self with few or thin clothes. Let but the clothing be comfortable, not too heavy; and regular exercise and regular living will be found the best means for fortifying the body against the elements."—*Journal of Health*, Vol. II. p. 54,

True, he may envelope himself with as many folds of dress as an Egyptian mummy every time he goes abroad, and thus bring on an oppressive heat and debilitating perspiration; but this is not likely to prove so injurious, as the too common practice of exposure to the cold and dampness of the evening, without an additional garment. Many consumptions take their rise from this imprudence. When a person has thrown himself into profuse perspiration by exercise, he ought also to put on an additional garment, instead of endeavoring to cool himself by natural or artificial currents of air. When he goes abroad to exercise, he should be thinly dressed; but when exposed without much exercise to cold and damp air, he should put on clothes enough to secure to himself the natural warmth of the body; the feet in particular should always be kept warm and dry. This part of the frame is peculiarly sensible to the effects of cold and moisture; and a person ought never to sit down after they have been wet, until his stockings are changed. Indeed, this should be a general rule in regard to every part of the body. The absurd notion that it is better to let wet clothes dry upon one's back, has sent many to a premature grave; and the escape of any who follow such a rule, is rather to be imputed to the strength of their constitution, than to the harmlessness of the practice.

Hardening ourselves by exposure.

Great injury is often sustained by sedentary men in the spring and autumn, by attempting to harden themselves so as to live in cold, damp rooms without any fire. If indeed they were vigorously to exercise in such rooms, there would be no danger; but to sit still there until they are chilled, and this day after day, is a sure method to lay the foundation for rheumatism, consumption, and dyspepsy. True, there is some danger of making our studies too hot, so that debility will be the consequence; but small fires, rather late in the spring and rather early in autumn, are important to counteract the moisture.

When, however, the system has become chilled more or less thoroughly, it is an important rule, but one little regarded, to restore the natural warmth, not by sitting down before a large fire, but by vigorous exercise. Such a practice would prevent nearly half of the colds or catarrhs that afflict men.

Best kinds of clothing.

In cold and changeful climates garments made of woollen are decidedly the best, to be worn next the skin; and for invalids such a dress is indispensable. Cotton is next in value; and for warm climates is generally superior, on account of its lightness. Linen is an article of luxury that should be indulged in with caution by the invalid; and it is not to be much recommended to the healthy. Silk worn next the skin, is still more objectionable. Persons of feeble health have not unfrequently derived benefit from wearing in winter a waistcoat and drawers of chamois or deer's leather.

Change of clothing.

Not a little mischief is done by leaving off the winter clothes too early in the spring, and delaying to resume them till late in the autumn. Some physicians have recommended that the winter dress be laid aside the day before midsummer, and put on again the day after. To be serious, however, June, July, August, and perhaps a part of September, is the only time when summer clothes should be used.

Tight dressing.

It would seem hardly necessary to caution gentlemen against tightness of dress. Yet according to the experiments of Dr. Herbst, a young man of twenty one, when dressed, took in, every time he drew his breath, only 50 cubic inches of air: but when his clothes were loosened, he inhaled 96 cubic inches each time. This shows us,

that much as we may declaim against the corsets and tight lacing of females, we are not entirely out of danger; especially if we are ambitious of being brought into that wasp-like form, that meets us in the drawings of the latest London fashions, hung up in almost every tailor's shop. But had Dr. Herbst performed his experiment upon some of the ladies, it is to be apprehended the result would have been truly appalling; for, as a medical writer remarks, "we often meet ladies so cruelly dressed, that we wonder where their lungs and livers are gone to."*

CLEANLINESS.

Another branch of the subject of regimen is cleanliness. It does not strictly belong to this subject, in connexion with health, to speak of the effects of careless, slovenly and filthy habits upon the respectability of a literary or professional man in the world: and yet, I can hardly refrain from saying, that the success of such men depends nearly as much upon a proper attention to neatness and cleanliness, as upon their talents or acquirements. The world like to have their tastes gratified, as well as their intellects: and the avenue to the affections is through the taste. Suppose then, you are introduced into good society, as a man of talents, and you appear there with a long beard, a dirty cravat, unbrushed boots, or hair uncombed. Not the strongest mind, or the finest wit, or the deepest lore, can prevent you from being a disgusting object in such a community. And if your debut be of this character, depend upon it, that a prejudice will be excited against you, which you will find it no easy matter to conquer.

Slovenly practices.

Now the fact is, that the secluded life of the scholar, and the constant pressure of his studies, expose him, in a peculiar manner, to the acquisition of slovenly and filthy

* Journal of Health, p. 117, vol. 1.

habits. Hence it is, that his room, if left to his own oversight, sometimes does not correspond with our ideas of the domicil of a young Cicero, or Masillon. Hence too, you will see him abroad with slip-shod shoes, or with a cravat in which he has slept for two or three nights; or with a beard, that is troubled with a razor only once a week. When a man is pressed with a multitude of cares and duties, he is sometimes compelled to neglect, more than he could wish, some of these minor points: but such an excuse, no student in a literary institution can plead. And just so certain as you find any one indulging such habits, while there, you may expect, if you meet him in after life, to find them still cleaving to him, and injuring his usefulness. I am not, indeed, pleading for a foppish attention to appearance; nor would I have the student indulge in costly articles of dress, or be very solicitous to have his coat in the latest London fashion. But I would have him show cleanliness and neatness in every part of his person; especially when he appears in public. If engaged in any employment, where dust will necessarily cleave to him, he ought, indeed, to adapt his dress to the situation, nor feel any more ashamed of it, than of the newest and richest garment in the proper place. But I would not have him consider it a matter of no importance, what be his appearance in public. If he chooses, in respect to his beard, to become a Jew, I have no objection; but I do object to his wearing a beard, which belongs neither to Jew nor Gentile: for it will make him alike disgusting to both.

Nor is attention even to such small things as the cravat and beard, of no importance to health. I have known a fit of dyspepsy and nervous depression removed, by a clean cravat and a clearing away of the beard: and indeed, cleanliness throughout produces such a sense of comfort, that this single feeling, like all other pleasurable emotions, contributes not a little to continue the wheels of life in motion. Hence, to keep the skin clean, is a most important object; for thereby the pores are kept open, and insensible per-

spiration—whose operation is essential to life—is greatly promoted. This is accomplished by bathing.

Bathing.

Bathing, among the ancients, was practiced almost universally : and in warm climates, and in Russia, and Hungary, much attention is paid to it at the present day : and it is the opinion of physicians, that its neglect by other nations is to be regretted. Certainly it is among the means of health, that ought not to be neglected, either by the healthy, or invalids.

Cold Baths.

In taking the common cold bath, a running stream, with a bed of pebbles, or sand, should be selected : and the common opinion, that if a person be in a state of slight perspiration, he should wait upon the shore till he becomes cool, is erroneous. He ought not indeed to plunge into the water if greatly fatigued : lest the proper reaction should not ensue. But if moderately warm by exercise, his system is in the very best state for sustaining the shock, produced by the cold water. And the same remarks will apply to the shower bath ; which, in many respects, is preferable to the running stream. In either case, a general glow and warmth of the whole body ought to succeed the chill first felt : and if that chill remain for a considerable time, and is succeeded at last by a dry skin and feverish heat, dullness, headache, or tightness across the chest, it indicates that the requisite reaction has not taken place ; and that such bathing does not agree with the constitution. At any rate, vigorous exercise ought to succeed the act, until a considerable degree of perspiration is excited. In using the shower bath, only a single effusion of water should be taken at once ; and no one ought to remain immersed in a stream, more than a minute or two, unless vigorously employed in swimming, when a little more time may be allowed : though in general, there is great danger of lingering too long in the deli-

cious sport. Immediately on coming out of the water, the body should be vigorously rubbed, with a coarse cloth, as a means of exciting the vessels to action. The early part of the day, particularly between breakfast and dinner is the best time for this business: and in our climate, the cold bath can hardly be continued with safety very late in the autumn, except by the most vigorous constitutions. Tepid baths, however, in which water is heated from 70 to 85 of Fahrenheit, may be substituted for the cold season. Or during the winter, invalids would do well to sponge themselves every morning on rising, with water somewhat warmed, or with vinegar and water. And some persons are in the habit on rising, of plunging their feet, for a moment, into cold water: and physicians speak well of the practice, where the constitution will bear it.

Vapour and Warm Baths.

Vapour baths are intended for the application of steam to the whole, or a part of the body; and usually require the direction of a physician. But warm baths may be used by almost every description of persons, as a preservative of health, a restorative to health, and a luxury; and that too, at all seasons of the year; provided a few precautions be observed. The water in the bath should never be used, until it has risen to a temperature between 90 and 98; and a person ought to remain in it, from 5 to 20 minutes. The best time of day for using it, is two or three hours after breakfast; and the conduct to be pursued on coming out of water, is similar to that already pointed out in respect to cold bathing.* Once a day in our climate, is often enough, and probably too often, for bathing of any kind.

I have been thus particular on this subject, from a wish to render the bathing establishment, some of you have seen fit to connect with this institution, as useful as possible; and to prevent any abuse of it. Believing, as I do, in its

* Note, E. E.

great importance, I could wish to see it so enlarged, that every student might avail himself of its benefits.

EVACUATIONS.

So important is the due and timely evacuation of the faeces; so injurious their retention in the bowels, after their nourishment is withdrawn; and so liable are the sedentary to costive habits, that no motive of delicacy would justify the construction of a code of health, which should omit to notice this subject. But all needful directions concerning it may be given in a very few words. The grand object is, to secure a movement of the bowels, in most cases, once a day—in some cases, it does not seem necessary more than once in two days. Let there be, however, a stated time, and immediately after breakfast is the best time, for attending to this business. Even if no desire for the exoneration of the bowels be felt, let the proper place be regularly visited at the stated time, and habit will help nature. Attention to diet and exercise will usually ensure a discharge at the proper hour.—In particular, let unbolted wheat, or rye flour, be used for bread: and let no one, if possible, contract the very injurious habit of resorting to medicine, even if it be merely to occasional chewing of rhubarb, to accomplish this elimination. He will find the remedy worse than the disease.*

SLEEP.

Sleep is the grand restorer of nature's exhausted energies; nor can the animal system be prevented for any great length of time, from falling under its influence. Couriers, coachmen, and travellers, it is well known, often

* "Costiveness," says a friend, "with which Dyspeptics are generally afflicted, may be happily obviated, by using the Phosphat of Soda, in the room of common table salt, which it very much resembles in taste. It may be used very freely, without imparting any unpleasant sapidness to the food."—See also on this subject,

Note, C. C.

fall asleep in their carriages, and on horseback. During the retreat of Sir John Moore, in Spain, many soldiers were found to be asleep, while yet they were marching on; and some boys, completely exhausted, fell asleep in the midst of the battle of the Nile.*

But the most important points that now require attention on this subject, are, first, what is the best time for sleep: secondly, what is the needful quantity: and thirdly, what are the best means for promoting sleep?

Best time for sleep.

As to the first point, nature throughout all her dominions, speaks an unequivocal language, proclaiming night to be the season best adapted to repose. All animals, accordingly, obey the instinct which prompts them to rest at that season, except beasts of prey and some of the insect tribes. Man, in his unsophisticated state, is not an exception; but man, perverted by custom, joins the carnivorous tribes in converting night into day and day into night. Philosophers, physicians, and ministers of the Gospel, have long and loudly remonstrated against this debilitating, demoralizing transformation; but still the current of fashion and pleasure bears along its votaries, as numerous and infatuated as ever, to the midnight feast, or dance, or rout. And especially in large cities at that hour, all is life and motion; while the beautiful rising sun sees only here and there the market man, the watchman, or the stranger, to welcome his first beams, and to drink in the balmy breezes of the morning. Oh, this is a monstrous perversion of the course of nature, and no wonder God visits it in wrath by withholding refreshing slumber from those who are guilty of it, and bringing upon them hundred headed diseases, that make existence a curse. Let every student make up his mind, while yet he is on safe ground, that he will never yield to

* Rees' Cyc. Art. Sleep.

such a practice ; and let him adhere to his resolution to the end of his days.

To quell the reproofs of conscience, an opinion is maintained, that it is of little consequence what part of the twentyfour hours is appropriated to sleep, provided the proper quantity be taken. But this sentiment deserves reprobation. The fact is, one hour's sleep before midnight gives more refreshment to the system, than two hours afterwards. Hence it is agreed on all hands, that ten o'clock is the latest hour at which a literary man should retire to rest. And really, if I had the power, I should not be wanting in the disposition, to establish military law in our colleges on this point, and absolutely to prohibit any one, except in cases of sickness or other providence, from burning his lamp after that hour. I would not annex as severe a penalty as did Frederic the Great, who executed one of his officers for continuing, contrary to orders, to burn a lamp in his tent a few moments after ten o'clock, in order to finish a letter to his wife, as he expected the next morning to go into battle : but though I should regard this as rather too severe, yet I would have a penalty follow, that should be neither light nor tardy. For in fact, such a rule would be of immense advantage to every literary youth. And every such one would gain still more, if he should make it a rule to be in bed at nine o'clock. This would be restoring the good old habits of our ancestors ; and would, I doubt not, bring back some of their virtues.*

Quantity of sleep necessary.

The second inquiry relates to the quantity of sleep that is necessary. And this, we all know, depends upon the age of the individual and the state of the health. Females, it is said, also require rather more sleep than men ; and different constitutions demand some latitude in this respect. But leaving children, invalids, and aged people, out of the account, the young and the middle aged require from six to

* See Note F, F.

eight hours of rest. It has been said by some one, that six hours were enough for a student, seven for a gentleman of leisure, eight for a farmer, and nine for a hog: but I am satisfied that the student requires quite as many hours to recruit his system as the hard laboring man; because the latter usually sleeps much sounder. Probably every young man engaged in study ought to calculate upon getting from seven to eight hours of rest; for it is of great importance that a sufficiency of sleep be obtained; and every real student, from the character of his employment, is liable to be cheated out of a full amount of the rest which nature demands. Mental exertion without a correspondent exercise of the body, tends to wakefulness; or rather, when the mind is put into powerful action, it is not the work of a moment to stay the fervid wheels; whereas bodily efforts directly dispose to sleep, unless they be excessive. It is true indeed, that not every young man may need as many as seven or eight hours of repose; to some six is abundantly sufficient. But considering the temptations to curtail the amount of sleep, that beset the student in the wide and alluring fields of science before him, he had better perhaps calculate upon this quantity, rather than upon less. In middle age, he will probably not require so much as he now does. Bishop Taylor thought that even three hours in the four and twenty were enough; Baxter supposes that four hours will suffice for any man;* the celebrated Dr. John Hunter, and Frederic the Great, as he is called, devoted only four or five hours to rest;† Suwarrow, the renowned Russian general, accustomed himself to still less; and Charles the XII. of Sweden, uniformly slept but four hours;‡ John Wesley, the celebrated itinerant preacher, found six hours necessary for him, and probably this is nearer the common standard for the middle aged, than the other examples. The man inclined to be corpulent, however, must

* Duty and advantage of Early Rising, p. 44.

† Rees' Cyclo. Article Sleep.

‡ Military Mentor, vol. i. pp. 11 and 13.

not fear to rival even Suwarrow and John Hunter in this respect; for as old Parr used to say, such an one must "keep his eyes open and his mouth shut."

How to determine the proper amount of sleep.

It is desirable that each individual should be able to ascertain the precise amount of sleep, which his constitution demands; and, according to John Wesley, who printed a sermon on this subject, he may do this. "If any one desires," says he, "to know exactly what quantity of sleep his own situation requires, he may very easily make the experiment, which I made about sixty years ago. I then waked every night about twelve or one, and lay awake for some time. I readily concluded that this arose from my lying in bed longer than nature required. To be satisfied, I procured an alarum, which waked me the next morning at seven, near an hour earlier than I rose before; yet I lay awake again at night. The second morning I rose at six; but notwithstanding this I lay awake the second night. The third morning I rose at five; but nevertheless I lay awake the third night. The fourth morning I rose at four, (as by the grace of God I have done ever since,) and I lay awake no more. And I do not lie awake, taking the year round, a quarter of an hour together in a month. By the same experiment, [rising earlier and earlier every morning,] may any one find how much sleep he really wants."

How sleep is best promoted.

The third inquiry is, what are the best means for promoting sleep, or for securing the proper amount?

To accomplish this, the student should not rest satisfied until he is confirmed in the habit mentioned by Wesley, of taking the whole of his sleep for twentyfour hours, in unbroken succession, without any wakeful intervals. This requires an attention to several particulars.

In the first place, uniformity as to the period of repose; say from ten at night to five or six in the morning. Nothing but

necessity should induce any one to deviate from the hours he has fixed upon.

Secondly, the habit of retiring to rest early. Upon this point I have already insisted.

Thirdly, early rising. Of so much consequence is this habit justly regarded, that volumes have been written to enforce it. Philosophy, physic, poetry, and religion, unite their testimony and their appeals in favor of the practice. They paint to us the natural beauties of the morning; the clearness of mind, the exhilaration of spirits, and the invigorated strength, which are then possessed, and the consequent facilities for study, for meditation, for devotion, and for enjoyment, that are presented; nor have these advantages been overrated. Nevertheless, immense multitudes, whose only pursuit in this world is happiness, disregard them all, and suffer the sun to shine one, two, three, or four hours upon the world, before their eyes behold it; and thus do they deprive themselves of the possibility of real enjoyment; and as for usefulness with such persons, it is out of the question. For, as Dr. Trotter justly says: "Can any human being be in pursuit of noble and elevated honors, who is found in bed at eight or nine in the morning? Such a man never yet in the world acquired the title of either good or great."* On the other hand, those men who have done most for literature and science, or in the cause of benevolence, have, almost without exception, illustrated the good old rule:

Early to bed and early to rise,
Is the way to be healthy, wealthy, and wise.

Examples of early rising.

To give a few instances: most of the ancient philosophers and poets, as Homer, Horace, and Virgil, were of this description. In modern times, Dr. Parkhurst, the philologist, rose at five in the summer, and six in the winter: Sir Matthew Hale, who studied daily sixteen hours, rose early.

* View of the Nervous Temperament, p. 283.

Bishops Jewel, Burnet, and Horne, have left us their testimony and examples, in favour of early rising. Sir Thomas More, the author of *Utopia*, found time to compose that work by means of rising uniformly at four; and he represents the Utopians as being in the habit every morning of attending public lectures before day break. Old Parr, to whom I have frequently referred, sums up the rules of diet and regimen in the following weighty sentence—"Keep your body cool by temperance—your feet warm by exercise. Rise early—go to bed soon. Never eat till you are hungry—never drink but when nature requires it." Dr. Doddridge informs us, that most of his works were composed by means of rising at five, instead of seven o'clock. And it is said that Sir Walter Scott sends forth his semianual and even monthly volumes, by means of rising at four o'clock and devoting only five hours to study: so that after nine in the morning, he is free to engage in other pursuits. But one of the most instructive examples on record, is that of Dr. Paley. "I spent," says he, the first two years of my undergraduateship happily, but unprofitably. I was constantly in society, where we were not immoral, but idle and expensive. At the commencement of the third year, after having left the usual party at a late hour, I was awakened at five in the morning by one of my companions, who stood at my bedside and said, "Paley, I have been thinking what a fool you are. I could do nothing, probably, if I were to try, and can afford to lead the life you lead. You could do every thing, and cannot afford it. I have had no sleep during the whole night on account of these reflections; and am now come solemnly to inform you, that if you persist in your indolence, I must renounce your society." "I was so struck," says the Doctor, "with the visit and the visitor, that I lay in bed a great part of the day, and formed my plan. I ordered my bed maker to lay my fire every morning, in order that it might be lighted by myself. I arose at five—read during the whole day—took supper at nine—went to bed—continued the practice up to this hour."

Proper hour of rising.

From four to six o'clock seems to be the time for rising, if we follow the best examples: the precise hour being fixed by the season of the year, the age, the hour of going to bed, and the state of the health. He who rises thus early, and is not indolent, (and early rising and indolence, I believe, never go together,) will be sufficiently fatigued by nine or ten o'clock at night, to fall into a sound sleep, which, in ordinary cases, will not be broken till the regular hour of rising. At any rate, no student should permit himself to indulge in the second, or morning nap, after a wakeful interval. On this point physicians urgently insist.* Nor should any one indulge himself in lying in bed after first awaking in the morning: for nothing debilitates more. If he feels a strong propensity to fall asleep again, at the early dawn, let him spring instantly from his couch, and the shock of a refreshing air bath, will dissipate his drowsiness: and even if he has not had his usual allowance of sleep, it is far preferable to make up the deficiency at some other time, even after dinner, than to do it in the morning. For morning slumbers, are, of all others, the most unrefreshing; especially if the early part of the night has been spent in wakefulness. Yet by indulging in them, even in such cases, the pernicious habit of lying long in bed in the morning will be acquired insensibly. But by resisting the inclination, and determining that only certain hours of the night shall be devoted to slumber, the constitution soon yields to the habit, and an immense advantage is gained in respect to health.

Students apt to forget salutary college habits.

But why do I press the point of early rising, in a place where, *nolens volens*, it must be practiced? I answer, because I fear that this requirement is too apt to be regarded by students, as an unwelcome task, which greatly interferes

* See Journal of Health, vol. I. p. 75.

with their comfort. And I draw this inference from the fact, that so many, the day they leave college walls, revert to their old habits of going to bed and rising late ; and continue in them through life. Whereas, in fact, to have acquired permanently, habits of a contrary character, would be an ample compensation for all the confinement and expense of a college course. And if young gentlemen would look at the law on this subject in a rational light, and not as an unnecessary and unpleasant penance, their own experience would show them its immense importance to their future usefulness and happiness. I ought to add in this place, that persons remarkable for longevity, all agree in having been early risers.

Exercise necessary to sound sleep.

But in the fourth place, early rising is not all that is requisite to secure unbroken and refreshing slumbers at night. A proper amount of exercise during the day, is of immense importance ; as is shown by the fact, that labouring men rarely find any difficulty in securing a due proportion of sleep, unless their exercise has been excessive. The want of this exercise, is the principal cause of the sleeplessness and restlessness of the nervous and the bilious. Hence, if it have not been taken during the day, measures should be adopted for securing it before retiring to rest. To walk up and down an open passage for an hour, or more, before bedtime, is recommended for this purpose—agreeable to the practice of Cato, of Utica. Other kinds of exercise, however, afford good substitutes.

Temperance necessary.

Fifthly ; temperance in diet, is indispensable to quiet and refreshing slumber at night. This thought is well expressed in Ecclesiasticus : (Chap. 31. v.20.) “sound sleep cometh of moderate eating : he riseth early, and his wits are with him : but the pains of watching, and choler and pangs of the belly, are with an unsatiable man.” Almost every one

has found this sentiment true by his own experience. After indulging a little too much in some favourite dish, rich food, or unseasonable luncheon, or dessert, especially late in the evening, what man has not been tossed to and fro on his couch, harrassed by unpleasant dreams, and disposed to protract his stay in bed in the morning, to make up for the fatigue and restlessness of the night; and when he awoke, found himself dull, unrefreshed, irritable, and melancholy? But though all allow such to be the effect of great excess in eating, "it is worthy of observation also," says a physician, "that the stomach will sometimes be much irritated by a small quantity of indigestible food taken at night, and thus may sleep be prevented as certainly as if the organ were overloaded with food."* Even a too hearty dinner, taken at twelve o'clock, will very often produce such an irritation of the digestive organs, as to disturb, or destroy, the rest of the subsequent night: much more, then, might we expect this result from a hearty supper; and still more, from a ten o'clock luncheon of meat. This irritation of the intestinal nerves, is the grand cause of those unpleasant dreams, so troublesome and exhausting to nervous invalids: and even the *night mare*, which is only the climax of dreaming, is usually occasioned in the same manner. It produces also, in some constitutions, the idea of spectres, visions, and revelations. You probably have a case of this kind in the experience of Cowper. "To whatever cause it is owing," says he "(whether to constitution or God's express appointment,) I am hunted by spiritual hounds in the night season.

Case of Swedenborg.

A single hearty dinner was undoubtedly the source of the delusions of Swedenborgianism; as is evident from Swedenborg's own account of his first vision. "I dined very late" says he, "at my lodgings at London, and ate with great appetite, till at the close of my repast, I perceived a

* *Sure Methods* &c. p. 177.

kind of mist about my eyes, and the floor of my chamber was covered with hideous reptiles. They soon disappeared, and the darkness was dissipated, and I saw clearly in the midst of a brilliant light, a man seated in the corner of the chamber, who said to me in a terrible voice, "*cut not so much.*" At those words my sight became obscured; afterwards it became clear by degrees, and I found myself alone. The night following, the same man, radiant with light, appeared to me and said, "I am God, the Lord, Creator and Redeemer, &c."—"That same night the eyes of my internal man were opened, and fitted to see things in the world of spirits, and in hell, in which places I found many persons of mine acquaintance, some of them long since and others lately deceased."*

If such be the consequences of hearty dinners and suppers, how important the sentiment of the old latin prescription:

Somnus ut sit levis, sit tibi coena brevis ;†

Which has been thus translated, or rather paraphrased ;

To be easy all night,
Let your supper be light.

The person, who is afflicted with sleeplessness and hateful dreams, has only to put this rule into vigorous practice for a few months, to be satisfied that it is perfectly efficacious.

Unbending the mind before sleep.

Sixthly ; it is essential to sound sleep, that the mind be unbent from severe study, a considerable season before bed time ; long enough, if possible, to get the subject entirely out of mind. Perhaps nothing is so well calculated to accomplish this, as those devotional exercises, that are appropriate to the close of the day, if they be performed with the faithfulness and interest they demand: and surely, the

* Christian Spectator, Dec. 1823, p. 618.

† Cheyne's Essay on Health and Long Life, p. 81.

calm and peace which religion inspires, are most eminently calculated to sooth the irritated nerves, and induce quiet and refreshing repose. But to this point I shall probably again refer in another lecture.

Other circumstances that need attention.

Finally, there are several other circumstances, of less importance, that contribute somewhat to secure the repose the literary man needs.

His sleeping apartment should be as spacious as possible ; or if small, the doors leading to the adjoining apartments should be left open. A room in an upper story is best. To crowd several beds into the same apartment is highly pernicious.

It is hardly necessary to say, that a nice attention to cleanliness, not only in beds and clothing, but also in the chamber, is of high importance.

Very warm sleeping apartments are injurious. Indeed, for persons in health, no fires should be admitted into them, at any time : or if admitted, free ventilation before bed time is desirable. The temperature ought not to be higher in any case for the healthy, than fifty degrees.

The practice of warming the bed, unless dampness or previous exposure to cold render it necessary, is very debilitating : and so is the habit of loading one's self with an insupportable weight of clothes. Enough to produce comfortable warmth, is all that is necessary.

The practice of leaving open the windows of a bed chamber during the night in summer, is a bad one. It might do no injury to the sailor, or the soldier ; nor to the student, after he is thoroughly trained to the sailor's or the soldier's life. But, says the *Journal of Health*, " many persons have experienced serious and irreparable injury to their health, by being in this manner subjected, while asleep, to a current of cold air from without."* Multitudes, I know, will

* Vol. I. p. 85.

say that they practice this impunity; but this only proves the strength of their constitutions, and not the good effects of the habit, nor its freedom from danger, to the more feeble.

Writers on the means of preserving the health, are almost unanimous in condemning the use of feather beds, especially for the young; unless it be in the severest part of a northern winter. A mattress, composed of moss or hair, should, they say, be invariably preferred. Curtains drawn around the bed are inadmissible in any case; because they confine the air. Sleeping with the head beneath the bed clothes is still more pernicious; and, for the same reason, beds should never be placed upon the floor; since the impure air generally settles to the lower part of the apartment.

The practice of sleeping after dinner is of very questionable utility; chiefly because it prevents refreshing sleep at night; and disposes a person to the habit of sitting up late. If the tendency to sleep at noon be brought on by excess in eating, as it usually is, it is the precursor of apoplexy, and must be resisted. Even the invalid, if he can, will do well to avoid his "forty winks' nap" at noon. Some writers, however, I ought to remark, recommend to such, a short indulgence of this kind.

MANNERS.

Attention to manners, may not appear, at first view, to have any connexion with the health. But it is not so. All our habits of body and mind are so intimately related, that their mutual influence is great; and not one of these habits can be named that does not, directly or indirectly, affect the health. And I maintain that gentlemanly manners, or the manners prevalent in good society, are favourable to health. I speak not here of Chesterfieldian niceties, nor of Chesterfieldian absurdities; but of those fundamental rules of politeness, which regulate the conduct of a gentleman and a

Christian. These principles dispose him to treat others with urbanity, kindness, and due respect ; to make him extremely cautious of injuring their feelings, diminishing their reputation, or throwing obstacles in the way of their enjoyment. And on the contrary, it is a leading object in all his intercourse with others, to make them happy ; not indeed, by any sacrifice of truth, or principle, but by exhibiting a disposition to befriend them ; to overlook their minor failings ; and to give them credit for every virtue which they really exhibit. Now such treatment from our fellow men, has a powerful tendency to buoy up the mind, and make it cheerful ; and thus to promote the health. And by cultivating such feelings towards others, we shall perceive a happy reaction upon ourselves ; contributing not a little to bodily, as well as mental sanity and enjoyment.

Students apt to neglect the promotion of manners.

Now it ought not to be concealed, that the retired life of students, tends strongly to prevent the formation of such manners as I have just described. Hence it is, that they are so apt to indulge in jesting and innuendo, in their intercourse with one another. Hence they so often visit each others' rooms in quaker style, as to their hats. The consequence is, they are very apt to carry the same habit into the public rooms of college ; and it will be strange, if such persons do not find this habit clinging to them when they go abroad into the world, producing an impression upon cultivated minds and tastes, that it is easier to obtain a diploma for progress in knowledge, than to get rid of uncouth and clownish manners. The same inference will be drawn, should the student, when hereafter he becomes a clergyman, or a judge, or a legislator, be seen lolling, and yawning, and raising his feet upon the breast work of the pulpit, or the bench, or the senate chamber, as he used to do at college, in the chapel and in the lecture room.

INFLUENCE OF THE IMAGINATION AND PASSIONS UPON HEALTH.

These are the grand moving powers, not only of the soul, but of the body : take them away, and you leave nothing but a lifeless, stagnating mass of matter and mind. But as in mechanical operations, the moving forces are sometimes too powerful for the delicate machinery on which they operate, so the passions sometimes strain and sweep away the curious organization both of mind and of body. Hence their mighty influence over the health. Hence a quaint writer calls them “ the thunder and lightning of perturbation, which causeth such violent and speedy altercations in this our microcosm, and many times subverts the good estate and temperament of it.”

Effects of violent passions on the body.

Every man must have realized in his own experience something of the mighty influence of the more violent passions over the body. Who has not been sometimes sensible that the blush of shame was hurrying the blood to his cheek, and the strong nervous excitement of anger, agitating his frame ? Who has not felt the violent beating of his heart on opening an important letter, or on receiving weighty intelligence ! History testifies, that the Emperor Valentinian the first, Wenceslas, Matthias Corvinus, king of Hungary, and many others, died by a violent fit of anger.* Murat, king of Naples, received a letter from his wife, while absent in Buonaparte's celebrated Russian campaign, detailing some proceedings of his government, which he thought encroached upon the royal prerogative ; and so great was the effect of his jealousy, that before he had finished the letter, his whole skin became completely jaundiced.† Excessive joy is often fatal : thus it is said that Sophocles, the tragic writer, died in consequence of a decision being given in his favor in a contest of honor. Diagoras died at the instant

* Journal of Health, Vol. I. p. 154.

† Do. do. p. 142.

when his three sons were crowned on the same day as victors at the games. Pope Leo X. died of a fever produced by the joyful news of the capture of Milan.* Sudden and excessive fear has often produced a similar effect. A boy was once let down the side of a very high precipice in a basket, to rob an eagle's nest: while suspended some hundreds of feet above the rocky base, he was attacked by the eagle; and in cutting at the bird with a sword which he carried with him, he struck the rope by which he was suspended, and cut it nearly off; on drawing him up, his hair was found changed to white.† Sudden horror and anguish produce similar effects. A widow in Paris, on learning that her daughter with her two children had thrown herself from an upper story of the house and was dashed in pieces, became in one night as black as a negro.‡ Terror has an effect equally powerful. Thus, "a Jew in France came in the dark, over a dangerous passage on a plank that lay over a brook, without harm; the next day, on viewing the perilous situation he had been in, he fell down dead.¶ Sudden grief has sometimes proved alike fatal. Philip V. of Spain died suddenly on learning the disastrous defeat of his army; and on dissection it was found that his heart was literally burst asunder; showing that the common phrase, *a broken heart*, is sometimes pathologically correct.

Diseases cured by imagination and passion.

On the other hand, imagination and passion have often proved of the highest benefit in the cure of diseases. History is full of examples of this kind. The animal magnetism of Mesmer, and the metallic tractors of Perkins, whereby thousands were actually cured of most obstinate disorders, by means which were proved in the most satisfactory man-

* Rees' Cyc. Article Passion.

† If I recollect rightly, this is related in Thornton's Medical Extracts.

‡ Johnson on the Liver, &c. p. 210.

¶ Johnson on the Liver, &c. p. 205.

ner to be mere mummary, curiously illustrate this subject ; although I have no time to enter into details.* Indeed, unless the physician can secure the influence of imagination, or rather of hope operating through the imagination, in favor of his medicines, he has little expectation of effecting a cure. Hence too it is, that particular remedies have such a wonderful efficacy for a time, and then fall into disuse. And hence too, the success that often attends quacks, who are as destitute of medical knowledge, as they are of moral stamina. By noise and profession they secure the confidence of the ignorant, and in this way do really perform many remarkable cures ; though in the end, they usually destroy a greater number than they restore. Hence too, the same medicine will cure in the hands of one physician, that will do no good, administered by another : for “ *plures sanat, in quem plures confidunt.*”

Amusing calculation.

That those maladies which originate in a disordered imagination, can be cured by producing a belief that they will be, seems most rational ; and that the proportion of disorders originating from this source, and from the influence of passion, is large, none can doubt. The following amusing estimate, said to be made by an old London physician, exhibits the origin of the different cases of disease to which he was called in the course of a year ; viz : Vauxhall, Theatres, hackney coaches, and places of worship, (that is, crowded public assemblies,) 1600 ;—Indulgence in Wine, Spirit and Smoking, 1300 ;—Indolence, 1000 ;—Sudden changes in the atmosphere, 1200 ;—Prevalence of the North or East winds, 1800 ;—Force of Imagination, 1500 ;—Gluttony, 1300 ;—Quack Medicines, 900 ;—Love, 750 ;—Grief, 850 ;—Unsuccessful gambling, 900 ;—Contagion, 900 ;—Study, 950 ;—Reading novels, 450.

“ Of these real friends of the physician,” he adds, “ I am

* See Rees' Cyc. Article Imagination.

more indebted to Vauxhall, the theatres, places of divine worship, and hackney coaches, than any other, because the diseases they occasion are inflammation of internal parts, which is not soon reduced, and often terminates in chronic diseases, as pulmonary consumption and rheumatism. To Fancy I do not feel much indebted, because the patients are very far from being pleasant ones to attend; indeed, I had rather have been without them. 'The north, east, and north-east winds, always add considerably to my list of patients. Gluttony, and abuse of ale, wine, and smoking, are excellent friends, because they are constantly acting for me. Quack medicines are sincere friends, because they amuse the minds of the restless hypochondriacs, and convert acute diseases into chronic. Gambling occasions nervous *affections* which reflection cures. 'The south and west winds are also good friends, as they add to my reputation by curing many diseases. Love and grief, although perfect strangers to me, are nevertheless sincere friends.'*

Real disorders yield to the power of fancy.

But fancy is not concerned in the production and cure of imaginary disorders merely. Some that are real and obstinate yield to its power. At the siege of Breda in 1625, the scurvy raged to an alarming degree; so that the garrison was about to surrender; when the Prince of Orange sent into the fortress a few phials of sham medicine, which was distributed among the sufferers, as most costly and invaluable. The effect was almost miraculous. "Such as had not moved their limbs for a month before, were seen walking in the streets, sound, straight, and whole. Many, who declared that they had been rendered worse by all former remedies, recovered in a few days, to their inexpressible joy."

The remarkable cures of persons afflicted with the Scrofula, or King's Evil, by the kings of England and France, particularly by Charles II. and those of the pious, though

* Journal of Health, Vol. I. p. 107.

superstitious, Valentine Greakraks ; those of Francisco Bagnone, in Italy ; and those celebrated as miracles in the Romish Church, by touching bones, relics, &c. all belong to the same class ; and are well worth the student's attention, as illustrating the power of imagination over the body, and as showing the facility with which mankind may be duped by the crafty and designing. The case of a man cured of the gout by terror and alarm, as mentioned by physicians, is striking. Another person, disguised as a spectre, entered his chamber while he was in a paroxysm of the disorder, seized him and dragged him down stairs with the gouty feet trailing behind him. Then the ghost disappeared ; when the sick man sprang upon his feet with the utmost ease, ran up stairs, and never afterwards felt another symptom of gout.

Case of Muley Moluc.

The sudden strength, which strong passion can inspire, even in a dying man, is well illustrated in the history of Muley Moluc, Emperor of Morocco. His troops were engaged in battle with the Portuguese ; and he was carried upon a litter into the field, conscious that he must die in an hour or two, of an incurable disease. But his army began to retreat. He sprang from his litter, rallied his flying troops, saw the enemy beaten, and then returning to his litter, sunk down exhausted and expired.

Hope and joy.

With the exhilarating and invigorating influence of the milder passions, both upon the mind and the body, we are all, I trust, familiar. Every nervous invalid especially, can doubtless recollect the remarkable transition in all his mental and corporeal feelings, produced by the unexpected breaking in upon his mind of a ray of hope, or a gleam of joy ; how from being silent and melancholy, he became sociable and cheerful ; how his sloth was exchanged for active efforts ; how the dread of disease and death, which

had been haunting his imagination, disappeared ; and the world, which just before was clothed in sombre hue, was soon dressed in a sunny radiance, and he arose a renovated being.

Melancholy and jealousy.

On the contrary, every such man knows full well, how paralyzing is the effect of melancholy, despondency, and jealousy. For these are the passions that brood, like an incubus, over his spirits, a large portion of the time : and most persons of this character, by the free use of stimulating food and drink, under the idea of giving their bodies more strength, do in fact oppress the corporeal powers, and thus feed these morbid passions, that are slowly consuming their lives. Nor can they ever get rid of the cloud, until a change of habits shall break up the strong delusion. Temperance in diet, and thorough persevering exercise, will accomplish their emancipation, and bring them under the influence of settled cheerfulness and tranquillity of mind—a state of feeling, perhaps the most enviable in this world—and absolutely necessary to longevity and usefulness. To secure such a state, therefore, should be a grand object with every student. Let him labor for it without remission; assured that it is the true *elixir vitæ*—the genuine philosopher's stone.

Youthful Love.

There is one passion of omnipotent sway in the youthful breast, to which I have not alluded. And ought I not, from a sense of delicacy, to pass it by? If I had not in these lectures undertaken, in the plain and fearless language of a friend, to warn you of every danger, which I could discover in the field I am exploring, I might consent to leave the subject of early attachment to the female sex, untouched. But I look upon students, as a class among men, who make the pursuit of knowledge, paramount to every other of a worldly nature ; and who are ready to sacrifice

any other object, when it comes in collision, or interferes, with this ; certainly, during the eight or ten years of their preparatory course. On this ground I have urged the imperious necessity lying upon such, to deny themselves every gratification of the palate, inconsistent with the most vigorous exercise of the mind. On the same ground, I warn them against the mighty and dangerous influence of love. If they fall under its magic influence, and become devotedly attached to some angelic nymph, while yet they are green in literature, and have not acquired an unconquerable relish for study ; I do not say that they are inevitably ruined ; but they are walking along the edge of a precipice, over which thousands and thousands have plunged : At any rate, they have thrown a mighty obstacle into their literary course ; and it will be marvellous, if their progress afterwards be not with a feeble and halting step.

“ To sighs devoted and to tender pains,
Pensive you sit, or solitary stray,
And waste your youth in musing—
The infected mind,
Dissolv'd in female tenderness, forgets
Each manly virtue and grows dead to fame.
Sweet heaven, from such intoxicating charms
Defend all worthy breasts !”—*Armstrong on health*, p. 96.

I am not arguing, with misanthropic stoicism, against a proper attention to this subject at the proper time. It is a wise and beneficent law of heaven, that the heart should yield to its influence, when it will not interfere with other concerns of higher moment. But why this great hurry to be unalterably affianced to some bewitching fair one, while yet the tastes, and habits, and manners of the student are forming ? and especially, while he has an object before him, sufficient for his whole powers to grapple with ; I mean the thorough discipline of his mind by study ? When his education is finished, and his taste and habits are formed, he will have ample leisure to attend to this concern ; and will

then be less under the influence of a skittish fancy, and less liable to become tired of his choice. For however the ardent lover of eighteen may resent it, it is true, that as his mind becomes more expanded, his taste more correct, and his acquaintance with the world more extensive, the angelic charms of his lovely fair one, may fade away; and he find himself in the sad dilemma, of spending life with one for whom he has little respect, or attachment; or of violently breaking asunder engagements, for whose fulfilment he is most solemnly pledged. Such a dilemma is a perfect cure for the enthusiastic notion, so prevalent among the young, that these sexual attachments are beyond their control; and that if the spell comes over them, they have nothing to do but to submit to it; indeed, that these "congenial minds" are fitted for one another in heaven, before their descent to this world; according to the love sick ditty of Dr. Watts' Indian Philosopher.

The wisest course.

Wisest and happiest by far, then, in my opinion, is that student, who during his collegiate course, avoids the snare of female love. I do not mean to charge him with moral delinquency if he is entangled: but I say to him, that he has bound a load upon his back, that will be very likely to retard his progress up the hill of science; and which may altogether discourage him from advancing. Nay, let him not forget, that this very hindrance has turned not a few talented and even pious youth, out of the path that leads to usefulness and respectability, and sent them down into the valley of forgetfulness--alas, some have landed in the gulf of infamy. And where else should we expect to find such, as have given themselves up to female influence? "An ille mihi liber videatur, cui mulier imperat, cui leges imponit, praescribit, jubet, vetat quod videtur; cui nihil imperanti negare potest, nihil recusare audet? Poscit? dandum est. Vocat? veniendum. Ejicit? abeundum. MI-

natur? extimescendum. Ego vero istum non modo servum, sed nequissimum servum puto.”—(*Cicero.*)

But if virtuous love be thus dangerous, what shall I say of every species of meretricious connexion? What shall I say? Solomon has already said it all, with the tongue of inspiration. He has shown us the way to the house of infamy, and hung up over its entrance, in burning characters, the appalling inscription—HER HOUSE IS THE WAY TO HELL: HER GUESTS ARE IN THE DEPTHS OF HELL—NONE THAT GO UNTO HER RETURN AGAIN, NEITHER TAKE THEY HOLD OF THE PATHS OF LIFE. If the student heeds not this warning, it is because moral principle, and the sense of shame, and the fear of God, are banished from his bosom; and therefore it is useless to make any farther appeal to one who is thrice dead.

Holy Love.

But to turn our thoughts far, far away from such scenes, I remark, that there are exercises of the principle of love, which have an omnipotent sway over every unruly passion, and a most salutary effect upon the health. I refer to the love which religion inspires for holy objects: for God as the supreme excellence, and for other beings, in proportion to their purity and value. This is the mighty energy, that is able to control the fiercest passions, and to strip the most desponding of their power. Even the settled melancholy of the bilious and the nervous—obstinately defying every other agency—may be dissipated by holy love. This turns off the affections and the attention from created objects, and makes the man feel, that it is of little consequence what evils betide him here, or through what storms he has to pass, since there are cloudless skies a little beyond, and a secure haven, which he is sure of entering and enjoying.

“ His hand the good man fastens on the skies,
And bids earth roll, nor feels her idle whirl.”

He can take up, and apply the triumphant reasoning of Paul : *If God be for us, who can be against us ? He that spared not his own son, but delivered him up for us all, how shall he not, with him, also, freely give us all things.*

When such a principle is in vigorous exercise in a man's bosom, what inferior passion will dare to lift its puny arm to make war therein ? And the serenity, cheerfulness, and stability, which it inspires, exert a mightier power in the prevention and cure of diseases, than any prescription the physician's Dispensatory can furnish. Yea, and when nature grapples with her last enemy, it is this principle alone, that enables the soul still to triumph ; and amid the ruins of the body, to exclaim, *O Death, where is thy sting ! O Grave, where is thy victory !*



PART III. EMPLOYMENT.

LECTURE VIII.

Influence of different Employments upon Health. Literary pursuits favorable to Health. Study: best posture of the body; best time of day for its prosecution; night study injurious. Means of preserving the Eyes. Recreation from study—Active benevolent Enterprises—Light Reading—Social Intercourse—Music. General Inferences.

With this Lecture, Gentlemen, I enter upon the third general branch of my subject, viz. Employment. Without much impropriety, indeed, I might perhaps have treated of this under the head of Regimen. Still, in the case of the student, it seems desirable to bring forward his daily avocations in bold relief; since these exert so important an influence upon his health. And this can be done most effectually, by considering literary pursuits as a prominent and distinct branch of the general subject.

Different occupations compared.

Although it is a matter of every day's experience and remark, that some occupations are more favorable to health and long life, than others: yet but few accurate observations have been made to determine definitely the amount of influence that is thus exerted. The following statements, however, will give some idea of the subject.

In Hamburgh, in Holland, it was ascertained that the proportion of deaths among the tailors, was about one in

every nine; among the cabinet makers, about one in 25; and among the barbers, nearly one in 18.*

Of 424 individuals, who lived over 80 years, there were, according to Schroter,

Apothecaries	2	Painters	3
Physicians & Surgeons	14	Musicians	3
Astronomer	1	Philosophers	18
Poets	3	Clergymen	33
Lawyers	23	Merchants	11
Schoolmasters	8	Housekeepers	10
Military Officers	21	Gardeners	4
Soldiers	12	Herdsmen	3
Noblemen	8	Laborers	8
Ministers of State	4	Mechanics	71
Countrymen	87	Sailors	2
Citizens	55	Grave Digger	1

But the character of my audience renders it unnecessary for me to dwell upon any occupation, that is not essentially literary.† I shall, therefore, direct my remarks,

In the *first* place, to the subject of study; and

In the *second* place, to recreation from study.

Study not unfavorable to health.

There exists a prevalent opinion, that literary pursuits are peculiarly unfavorable to health. The active part of society make this inference, from the fact that so many students are complaining of bad health; and so many others are compelled to abandon their books: and the student himself comes to such a conclusion, from an unwillingness to acknowledge that the failure of his health may more probably be imputed to his excesses in diet or study, or neglect of exercise, than to the nature of his pursuits; because in the one case, the fault lies with himself; and in the other, it is a mere misfortune.‡ But I do not believe the opinion to

* Journal of Health, vol. I. p. 166.

† See Note, G. G.

‡ See Note H. H.

be correct. Certainly to maintain the mind itself in a healthy state, it must have almost constant occupation—the more the better, if it do not fatigue. It is a want of such mental employment that gives rise to ennui, melancholy, and the whole train of depressing passions, accompanied by intellectual imbecility. Now a disordered mind will soon produce a disordered body. And what mental exertion, if properly made, can be more favorable to health, than the pursuits of literature and science? To every one, who deserves the name of a literary man, the acquisition of knowledge is an extraordinary pleasure: and this circumstance adds greatly to the good effect of study upon the bodily health; because no task is imposed. There is indeed, such a thing as an excessive attachment to books, which is injurious; because it leads to the neglect of every proper means of health: such was the enthusiasm of the English mathematician, when he exclaimed; *Crede mihi, extingui dulce erit mathematicarum artium studio*. Still a great degree of devotedness to learning, is not always unfavorable to longevity: “and,” as a medical writer observes, “we have many instances on record, of men who have attained their century of years, retaining their intellectual faculties, and admiring mental acquirements with the avidity of youth.”*

In support of the position, that literary pursuits are in themselves favorable to health, I might add, that while they afford a man all needful facilities for attention to diet and regimen, they enable him to avoid many of those exposures to wet, heat, cold, and excessive fatigue, to which the laboring classes are liable; and which are the exciting causes of a multitude of fatal diseases. They enable him, also, to adopt greater regularity in his mode of life, than can be done by others; and this is extremely favorable.

Opinion of writers on this point.

This view of the subject is supported by all medical, and other authorities. Says one of the former class; “to cul-

* Manual for Invalids, p. 36.

tivate a love of literature and the fine arts, and to direct the taste to pursuits of usefulness, is very comfortable both to health and happiness.*

Says another, of the latter class; "the time will come when the most cultivated and vigorous minds will be found connected with the most energetic bodies.

"The languid eye; the cheek
Deserted of its bloom; the flaccid, shrunk,
And wither'd muscle; and the vapid soul,"

ought as rarely to be found in our academic halls, as in the habitations of our hardy yeomanry. *Sana mens in corpore sano*, is, with proper management, emphatically the privilege of students. They may enjoy even better health than the most laborious. Alternation of bodily and mental effort will be found more favorable to health, than the long continued muscular action of the farmer and the mechanic. Studious men have more knowledge of the regimen essential to health, than others; and their situation for following it, is in general more favorable. That temperance in all things, which God has enjoined, especially in eating and drinking, united with that exercise of the mental and physical powers for which he made us, will be found to ensure the most perfect health."†

"The cultivation of the sciences," says the Journal of Health, "appears particularly favorable to longevity: there can be but little doubt that an individual who exercises his mind as well as his body, has a fairer prospect of life, than the one whose body alone is occupied—Franchini has enumerated 104 Italian mathematicians of different epochs: he has ascertained that of 70 of these, 18 attained the age of 80 years, and 2 of 90.—In France, according to M. Berard, 152 men of science and letters have been taken at random: half the number appear to have cultivated science, and about half to have been devoted to general lite-

* Manual for Invalids, p. 49.

† Frost's Oration.

rature : on computation, it was found, that the average life of each of the 152 individuals, was 69 years.”*

Those who die early left out of the account.

In advancing such principles, however, it ought not to be forgotten, that those who fall an early sacrifice to literary pursuits, are not taken into the account ; because their names are unknown, beyond the small circle in which they moved. And in our country, and our times, the number of such victims is unusually great. But shall their premature fall be imputed to the insalutary nature of their pursuits ? By no means : In the ignorance and neglect of the rules of diet and regimen, I have already pointed out fruitful causes of their melancholy fate : and another cause is to be found in their violation of the rules, which experience has shown to be best, for regulating the time and quantity of study, and the mode of pursuing it. My present object, is to point out these rules with as much distinctness as possible.

Posture in study.

In the first place, particular attention should be paid to the posture of the body in study. In general, that posture ought to be erect—certainly so far as the chest is concerned. Even when the student is sitting, the breast should be thrown forward, or swelled out, and the abdomen drawn a little inwards, that the lungs may have their full play, and none of the internal organs be unduly compressed. Bending over a table, so as to contract the organs of respiration, for any considerable time, is peculiarly injurious. And to avoid this most effectually, and also to give every organ a natural and unrestrained position, standing upon the feet is by far preferable to sitting, while engaged in study. In the former position most persons will hold out twice as long, with the same fatigue, as in the latter. I know that our natural indolence will plead hard for the easy chair ; and for one accustomed to this luxury of a study, of so questionable utility, it will require not a little resolution and self-de-

* Vol. I. p. 167.

nial, to learn to stand upon the feet. But I would urge perseverance in this habit, as of great importance. True, when a person attempts to study after fatiguing exercise, he may be excused for sitting until refreshed; but if his lassitude does not proceed from fatigue, let him not yield to it. If long standing is painful, the chair and the table may be used for a short time and then the standing position be resumed. Indeed, such an occasional alteration will generally be found highly beneficial; although the time spent upon the feet should always exceed that spent in the chair.

General posture of students.

It can hardly be thought a digression here, if I should say a few words upon the position of students generally. For they are very apt to acquire postures of the body, that are both extremely ungraceful and unhealthy; so that probably no equal number of any other class of men, taken at random, can be found, whose form and positions would be more exceptionable to a military eye and a correct taste, than theirs. And the reasons of this are, that they are generally bent over and cramped when studying; and few of them take any pains to correct their forms and postures at other times. But when we consider of how much importance is an erect and graceful form in a public speaker—how it half makes up for lame and crooked sentences—it seems strange that the subject is thus neglected. Every scholar ought to learn the posture of a soldier on parade, and to accustom himself to it so long, that it shall become easy and habitual. This posture does not consist in strutting, as most suppose; that is, in throwing the head far backward and the belly forward; but in holding the head perfectly erect, drawing in the belly, throwing forward the breast, and the shoulders backwards. This will place the line of the body in a perpendicular direction; which is the natural position of man, and very different from that slouching, ungainly, parabolical, indescribable form which we not unfrequently see under a scholastic habit. Some may, in-

deed, imagine that it savours of a proud spirit to appear always, *à la militaire*, with the head erect, the breast prominent, the elbows close to the body, and the legs straight; and that the curvilinear, undisciplined posture looks most like humility. But I do not think that an epicycloidal back is always indicative of a submissive spirit; nor a rectilinear spine, a sure index of a stubborn will. Depend upon it, gentlemen, that age and infirmity will bend you down early enough, however careful you may be to accustom yourselves to a soldier-like and gentlemanly form and posture in youth. While it is in your power, therefore do not bring a libel on human nature, by neglecting to cultivate your forms, as well as your minds; especially when health, equally with future usefulness and success, demands it.

Preparation for study.

In the second place, health, as well as success in study, demands a certain preparation for those seasons that are devoted to it. This preparation embraces both body and soul. If the mind be agitated by cares or passions, or disgusted with literary pursuits, attempts at successful study are mere mockery. And so if the body be oppressed with disease, listlessness, or excess in diet, the mind operates to an immense disadvantage; and to the still farther prostration of the corporeal powers. The body and the mind, therefore, must be put in order before we let in the steam, for putting the machine in motion. Otherwise some crank unequally pressed will be broken, some valve will not play, or some boiler will burst.

Very many students, especially in the earlier part of their course, estimate their proficiency by the number of hours which they employ with their books open before them; whereas in fact, a man who engages in study with no preparation for it, though he may spend his twelve or fifteen hours per day over his classics, frequently gains nothing in point of knowledge or mental discipline. Nay, he is not unfrequently like the frog in a well, concerning whom the

arithmetic inquires, how long before he will get out, if he ascends two feet per day, and falls back three ! But students learn before many years, that a single hour spent over their books, when mind and body are harnessed for the work, is worth twelve, when the one is unstrung and the other chained.

It is surely, then, an object of great importance, for every student to know how he may accomplish the most mental labor in the least time. Vigorous health is indeed of immense importance in effecting this ; but the person of rather delicate constitution, can perform wonders in this respect, if he observes certain rules : And first, his study should be retired, dry, airy, and agreeable.

Best plan for study.

Euripides, indeed, is said to have composed his tragedies in a cave ; and Demosthenes chose a place for study, where nothing could be heard or seen. But other men, equally happy in their mental labors, have found that the cheerful light of the sun, and the bracing influence of dry and pure air, were quite as favorable to the invention of original and happy ideas, as the gloom and dampness of a prison or a cavern. The groves and walks of the Academy and Lyceum near Athens, where Socrates, Plato, and Aristotle taught, were certainly far more conducive to health and cheerfulness ; and the examples of wisdom and knowledge which have emanated thence, will surely sustain a comparison with any that antiquity can boast. The confined air of a small apartment, and the dampness of a sunken cell, must certainly be avoided by the invalid if he means to preserve comfortable health, or sustain much literary effort. Nor should any one think it an object of no importance, to render his study a pleasant place ; at least, to exhibit taste, order, and neatness, in its internal arrangement ; and if it have some loop-hole through which his eye can rest upon an interesting landscape, it will tend to make his situation agreeable, and therefore, like home. A study, however,

should not crowd too closely upon the busy street, or other resorts of men, lest the attention be too much distracted.

Exercise before study.

Secondly; exercise, but not fatigue, should precede the hours of study. The exercise is necessary in order that the various parts of the bodily machine should be put into easy, vigorous, and harmonious action. For until this be effected, the finer intellectual organization within will be cramped, and operate only sluggishly and ineffectually. Every one must have perceived what acceleration and life have been given to mental operations, by exercise in the open air until a gentle perspiration opens the pores, carrying off the crudities of the blood, and the pulse is made thereby to beat full and strong, and the head is relieved from pains and drowsiness. But if the exercise be carried so far as to occasion severe fatigue, the mind, sympathizing with the body, demands repose; nor can it be spurred up to vigorous action, without making such a draft upon the secret energies of the constitution, as will be extremely hazardous to comfort and health.

Light meals before study.

Thirdly; light meals should precede study. I mean, when the hours devoted to study follow the meals with but little interval, the food should be very simple, and moderate in quantity. It is said, that it is very difficult to make a dog see objects through a window, because he looks only at the glass. And this, it seems to me, very exactly represents that student's condition, who sits down to his books after having loaded his stomach beyond all reason. True, he can fasten his eyes upon his books; but the clearest reasonings are all opaque to him, because his mental vision is so blunted by gluttony, as not to be able to penetrate the most transparent medium. He, however, does not suspect the cause, why he falls so far behind others in his attainments; nor why, after hours of study, no distinct impression

remains upon his mind. He charges it all to his poor memory, while God charges it to his intemperance. Hence it is, that study is so unprofitable to most persons immediately after dinner. And hence it is so unprofitable to multitudes after breakfast and supper too ; for after they have eaten at those meals as much as is necessary for twenty-four hours, their minds can no more operate freely, than can the lungs when a cord is tightly drawn around the neck. The mind, in such a case, must lie still until the stomach has got rid of its load. Hence too, it is, that the mind is less clear and the power over the attention less entire after a meal of animal food, than after one of vegetables ; for the latter exercises, far less vigorously than the former, the digestive powers, and produces less feverish heat. Hence too, abstinence, when not carried so far as to produce prostration, is perhaps the most favorable condition of any, for clear and powerful mental abstraction.

Strong excitement to be avoided.

Finally ; the mind should be kept free from strong excitement, or even very engrossing diversions, for some time previous to regular study. The waves of the ocean, when once raised, cannot in a moment be calmed, even if the cause of their excitement ceases. No easier can you put down at once the movements of the mind. You may excite counter waves in the ocean, but those already existing will conflict with them for some time : and the same is true of counter mental emotions. But in order to grapple successfully with the abstrusities of science, the mind should be brought to the task, in a collected and unruffled state. No half subdued gust of passion should start up—no melancholy train of thought should pour in its muddy current—no sudden start of a skittish fancy, or engrossing remembrance of a darling diversion—no dreams of romance—should come in to ruffle the smooth surface. The whole soul should be only a mirror of thought, where every image should be well defined, and without distortion. Intent only upon thor-

oughly comprehending the point before him, the student should endeavor to forget every thing else ; and to concentrate all the energies of his soul upon the task he has undertaken. And yet, so absorbed should he be in his work, as forthwith to forget that it is a task, and only feel that it is a pleasure. Although at the proper time he may give up his mind to business, care, light reading, or diversion ; yet these hours are consecrated sacredly to study—to the thorough discipline and enlargement of his mind ; and to all other things he should be able to say, *procul, O procul, este profani !* How very different will be the progress of a student thus fitted for the work—thus nerved with giant strength, and wielding an Herculean club—from that of him whose head is confused and heavy from a loaded stomach, whose strength is weakness from want of exercise, and whose mind is distracted with corroding passions, or light and airy thoughts !

Reading newspapers and other periodicals.

Altogether incompatible with such a preparation as this, is the practice of lounging in the early part of the day, over the last newspaper or periodical. Information thence derived may be serviceable, if obtained at the proper time ; that is, if such works be read as a relaxation from study, and after the regular study hours are past ; but to dip into them in the morning, or into the romance, or the play, or the poem, is effectually to unfit the mind for the vigorous, undivided efforts which the solid branches of learning demand. Hence students of this character, although they catch many of the floating and iridescent bubbles of polite literature, and acquire a pert flippancy and readiness of expression, are usually marked with *tekel* when put into the balances.

Devotional exercises.

Finally, perhaps there is no means more effectual to secure this mental preparation for study, that is so desirable, than by devoting the season immediately previous to devo-

tional exercises. I am not urging this duty as a theologian, but merely as a most effectual method of collecting the thoughts, of fixing the attention, of calming the excited feelings, and of awakening a determined purpose of soul. I speak not here of a hasty, formal, unfeeling, or unmeaning repetition of a prayer; but of those sincere and thorough devotional exercises which make the man feel the presence of God, and the controlling influence of religious motives, and the vanity, folly, and guilt of acting from merely selfish and ambitious views. Depend upon it, that he who has six hours before him for study, will make greater proficiency by devoting one of them to such exercises, than by monopolizing the whole for literature or science. Such a course, I might add, enlists in our favor infinite power and boundless wisdom!

What is study?

Having thus described the requisite preparation for literary labor, the third inquiry is, what portion of the day shall be devoted to regular and systematic study? For when I speak of study, I do not mean every thing that goes by the name. I look upon the reading of a newspaper, a periodical, a romance, a play, or a poem, as merely a relaxation from study. It is only when the mind is investigating some branch of knowledge, hitherto wholly or partially unexplored; and is advancing systematically in its conquests from one position to another, that the effort ought to be dignified with the name of study. A man may "toy with his books," and sometimes ought to do it for health's sake; but this is neither mental discipline nor mental conquest, and therefore not study.

What part of the day is best for study.

As to the season most proper for study, I shall speak the unanimous sentiment of every intelligent friend to health, and learning too, when I say that the earlier part of the day is decidedly the best. Every thing conspires to render

it so. The mind, as well as the body, is then refreshed and vigorous from repose; and every organ plays its part freely and pleasantly. And if the student do not clog his powers by too hearty a breakfast, or too violent exercise, or improper diversions, he will be able most successfully to prosecute his studies until the hour of dinner; interrupted only by those seasons which should be devoted to exercise; for I have already shown that such seasons are imperiously demanded, both for the preservation of health, and as a preparation for mental efforts.

General practices.

Those individuals in the literary world who have left the most imperishable monuments of their industry and knowledge, have, almost without exception, executed the greatest portion of their works in the early part of the day; devoting the latter part to exercise, recreation, and business. I have already, in another lecture, mentioned a striking living example, which may stand *instar omnium*, that Sir Walter Scott devotes only the hours from four to nine in the morning to literary labor. As to the practice of studying before day light, however, no student should enter upon it without great caution; for few have health and eyes sufficiently strong to endure it. But when a man has ascertained that no injury results from such a practice, he will certainly find a vigor and clearness of mind at that season, which he can scarcely hope to possess during any other portion of the day.

Night study.

While upon this subject, there is still greater need that I utter a strong *caveat* against night study: I mean study after nine or ten o'clock in the evening. Few literary men are aware of the great risk they run, by indulging in such a habit. And it is the besetting sin of studious men. The interruptions of the day, the stillness of the night, and not unfrequently the unnatural wakefulness produced by strong

tea, or a deficiency of exercise, are almost irresistible temptations to such, to prolong their studies beyond the hour, when health demands their discontinuance. 'The consequence is, disturbed and unrefreshing sleep. "The tired brain," says a physician, "can no more repose, than the overstrained muscles after violent exertion; hence the studies of the day rise in incoherent images at night, or drive away sleep altogether."* Every student's experience will attest the truth of this statement: But every one should make the most strenuous efforts to prevent the recurrence of such excitement during the night; for if suffered to continue long, it will infallibly destroy the constitution, and in some instances, it has proved suddenly fatal, by bringing on apoplexy. Warned by the existence of such a state of nerves, the student must forthwith follow the advice of Dr. Johnson. "Whenever we find," says he, "the diseases of literature assail us, we should have the lamp scoured out and no more oil put into it. It is night study that ruins the constitution, by keeping up a bewildered chaos of impressions on the brain during the succeeding sleep—if that can be called sleep, which is constantly interrupted by incoherent dreams and half waking trains of thought."

Professor Porson.

To procure repose in such cases, some resort to the laudanum or paregoric phial, or to spirituous liquors. This is suicide: for it tends to produce congestion, or inflammation of the brain: and thus, according to Dr. Johnson, did the celebrated Professor Porson terminate his days.

Henry Kirk White.

A more painful case of self-immolation, by immoderate night-study, was that of Henry Kirk White. Burning with an ardent desire for distinction in the literary world, and full of that self-confident presumption, which leads many students to despise all the advice of their seniors, and to ex-

* Johnson on Hygeia.

pect that their constitutions are strong enough to render all attention to health unnecessary, he persisted in an almost incessant application to study, until the delicate machinery of his system gave way, and left him only time enough in this world, while flesh and body were consuming, to pour forth the unavailing regret : *how have I hated instruction, and my heart despised reproof!* He allowed himself scarcely no time for relaxation, or meals, or sleep. He used to study till one, two, and even three o'clock in the morning; and then devote only two or three hours to sleep; having fixed a larum to his clock, to awake at five. His kind mother remonstrated, wept, entreated, and prayed in vain. She used to go every night to his study, at a certain hour, to extinguish his lamp; when he would conceal the light, and springing into bed, feign to be asleep: but rise again to his self-immolating work as soon as she had gone. The sacrifice was soon completed; and the victim has left his blood sprinkled over the vestibule of the temple of science, as a warning to every ardent youth, who attempts to enter in an unlawful manner.

Night study less successful.

Most literary men are convinced, that very late study at night is injurious to health: but few have any idea that it is equally hostile to the most vigorous and successful exertion of mind. Yet such is the fact: and if a man will review in the morning, the mental labours of the preceding night, especially if they were performed under the influence of any artificial stimulus, such as tea, coffee, or wine, he will find, that although there is exhibited evidence that the mind was in operation, yet the balance was gone, and the movements were too irregular to be useful. We should predict that the mind's vigor and calmness would be affected at night, by the bodily exhaustion; and the final result shows this to be a true prediction. We see this particularly, in the far greater retentiveness of the memory in the morning than at night: although probably there is a differ-

ence equally great, in the exercise of the other mental powers. The scholar, therefore, who wishes not only to preserve his health, but to bring forth the full strength of his powers, must choose the early part of the day for the burden of his intellectual labours. His most severe efforts should be over before dinner. In the afternoon, indeed, gentle application to studies requiring no great abstraction of mind, is not particularly injurious : and the same may be said of the evening, until nine or ten o'clock : But to throw the principal and most severe studies into this part of the day, is slow, but effectual suicide : and especially to spur up the mind to intense action, after nine o'clock in the evening, is aiming a blow, not only at health and life, but at all the budding hopes of literary distinction.

Fatal practices of Clergymen.

Probably no class of men violate these rules so extensively as clergymen. Their literary labours are necessarily very great ; composition being probably more exhausting than any other kind of study : and as the necessity of composition is constantly recurring, and other duties are crowding upon them, they are tempted to defer, as long as may be, the preparation of their sermons. Too often they procrastinate till evening, whose stillness invites to religious meditation ; and excited by some interesting train of thought, or, it may be, by strong green tea, they find the clock striking eleven, or twelve, or even one, before the exhausted powers demand repose. Worse than all, such protracted mental labours most frequently occupy Friday, or Saturday night, following a day of severe mental effort, and preceding the day, when a laborious bodily effort is to be made in public. Now this severity of study is the very way to unfit the body for sustaining the labour of public speaking, which is trying enough, under the most favourable circumstances ; but excessively prostrating to powers weakened by immoderate mental application. Can we wonder, that so many clergymen at this day, are victims to early prostration, and

almost constant feeble health, if such, or any thing like this, be their practice? and I fear, that essentially this course, is taken by a majority. The fact is, Friday and Saturday, or at least the latter, ought to be devoted by the clergyman, almost entirely to exercise; and his preparation for the Sabbath, should be nearly, or quite completed, before that time. Or it might be better for him, upon the whole, to make it his rule, to devote his forenoons only to study: and the remainder of each day, to parochial visits and other bodily exercise: and to have his people understand, that any calls or visits before dinner, except such as are imperiously necessary, will be regarded as an ungentlemanly intrusion. Such a course, resolutely carried through, would work wonders in respect to the health and usefulness of those who minister in holy things.

How many hours shall we study?

As to the precise number of hours, which it is advisable to spend in regular study, no definite rule can be given. Some constitutions will bear twice as much confinement as others, with the same health. And then again, an increase of exercise will enable one to sustain a greater amount of study. Besides, the man who enters his study, thoroughly prepared for his work, will accomplish more in one hour, than he who is unprepared can do, in four. So that no student can estimate his proficiency by the number of hours he devotes to his books. But each one may give as many hours to his study as he can do, after attending faithfully to the rules which I have mentioned in respect to diet and exercise: provided he finds his health remaining firm and vigorous. If morbid feelings beset him, he may be sure something is wrong, either in his diet, or exercise or amount of study; and if he can discover the difficulty no where else, he must shorten his season of study, and increase the amount of his exercise, until he has found out the proper medium.

Practice on this point extremely various.

Literary men have varied exceedingly in the amount of time which they have given to close mental application. Some could even confine themselves from twelve to fourteen hours each day; others, with feeble constitutions, have found six or eight as much as they could endure: And, says the Secretary of the American Education Society, "One of the most active and laborious professional students in America, and one who has given to the world as substantial fruits of his labours perhaps as any other man, in proportion to the time he has been upon the public stage, spends *three* hours of the day in close study, and a large part of the remainder in exercise. But study, with such men, is a term of different signification from what it has in the vocabularies of many who call themselves students. The hour comes, and finds them ready, like a strong man, to run a race. The mind grasps its subject, and refuses to quit its hold till it has gained its object."*

Danger of too protracted application.

The student ought here, however, to be cautioned against too protracted and intense application to one particular point. When the mind becomes exceedingly absorbed in a favorite branch of knowledge; exercise, succession of time, and even the common meals, are apt to be forgotten; and the man, in his reverie, becomes almost a martyr to his pursuit. This was once the case of the learned physician, Boerhaave. Having for a few days and nights bestowed intense study upon one subject, he fell suddenly into a state of extreme lassitude, and lay for some time in an insensible and death-like condition.† To avoid such a result,

* Quarterly Register of American Ed. Soc. vol. I. p. 53.

† Manual for Invalids, p. 39.—"The philosophic and strong minded Pascal, had his brain so much affected, after long and forced meditations, than he imagined for a long time a gulf of fire at his side."—Journal of health, vol. 1. p. 275,

let no student permit himself to employ the whole of any one day, much less several days, in exclusive attention to a particular train of thought. The rules for diet and exercise, which I have advanced, if properly attended to, will effectually guard against this evil. And in this respect, if no other, the required attention of the student to two or more branches of study during the same day, in most of our literary seminaries, operates very favorably.

Not a few conscientious students exceedingly injure their constitutions, by confining themselves a certain length of time to their books, when their health is so far impaired, that they can neither fix their attention upon one point, nor make any valuable advances in knowledge. Unwilling to yield in the contest with dyspepsy, or ignorant that it has seized them, they struggle for a long time to overcome their morbid feelings by force; whereas, a little yielding to them at first, a little relaxation from severe application, would effectually remove the difficulty, which is only aggravated by an uncompromising resistance; which, in the end, is sure to bring down upon the man a full phial of vengeance.

Indolent scholars in no danger.

I do not mean, by any thing I have said, to excuse the indolent scholar, who would gladly escape all mental labor; not because his mind has become jaded out with effort, but because it never learned how to operate aright, nor is capable of applying itself closely to any thing more than a novel, or a poem, or the last Monthly and Quarterly. Such men have my full liberty to study all night, and all day, if they will. I have no fears that they will injure themselves. And if they do, society will not regard it as an irreparable loss.

Means of preserving the eye sight.

The means of preserving the eye sight is so intimately connected with this part of the subject, and is moreover, of

such vast consequence to the student, that I feel desirous of devoting a moment to the subject.

The natural light of the day is most favorable for the eyes; as we might expect from the beneficence of God. If our studies, however, have a southern exposure, the light of the sun is apt to be too intense. A northern exposure is far preferable. The light entering a north window from a summer landscape, is probably more congenial to the eye than almost any other degree, either more or less intense.

Green is the most favorable of all colors for the eye: and hence the benevolence of God appears in spreading this color over the earth's surface for so large a portion of the year. Hence too, the reason that the painter uses a green palette: and that screens of this color afford so good a defence to weak eyes in the evening. Hence too, the value of green spectacles.* But here permit me to express the opinion, that many lose much of the benefit of such glasses, by wearing them in cloudy weather. For unless the eyes be very weak, they ought to be used only when artificial lights are employed, or when the person is exposed to the sun, shining in his strength. At other times, they are apt to strain the sight.

All artificial light, such as that of candles, lamps, gas, &c. is very trying to the eyes. Hence the great danger of injuring the vision by night study. Every person, who reads much in the evening, should provide himself with a green silk screen, and if convenient, with green spectacles of a light shade of color.

Perhaps the worst time for making use of the eyes, is during twilight. Nor is it well, as soon as the sun disappears, to shut up our window blinds and resort to a candle. The change seems to be too sudden. Another season peculiarly trying to eyes, in the least degree weakened, is before day light in the morning.

* Hence too, it is a good practice to paint a study of a green colour.

Repeated ablutions of the eyes in cold water, especially in the morning, are generally of service. Any more powerful applications, however, should be employed with extreme caution, and not at all, undirected by a physician: for an organ so delicate as the eye, will not endure much quack doctoring. If the eyes begin to fail, the best remedy, usually, is to give them rest.

Upon the whole, strict temperance and regularity, particularly in respect to sleep, with exercise in the open air, are the grand means of preserving and restoring this most delicate and all important organ: and when we consider how extremely sensible is the eye to injury, and how carelessly men use it, we shall rather wonder that so few fail, than that the instances of their failure are not infrequent. If however, students were aware of the inconvenience and suffering, consequent upon impaired vision, these cases would be far less numerous than they now are.

Recreation from study.

Having discussed the essential principles relating to study, I proceed, in the second place, as proposed, to say a few words in relation to recreation from study. I have so often, in these lectures, urged the necessity of diverting the mind from intense thought, by turning the attention to other objects, and those of a pleasant and amusing kind, that I need not dwell upon this point again. And I have already alluded to most of those amusements and pursuits, proper for the sedentary, and connected with exercise. A few other means of recreation, which have little connexion with exercise, although powerful in their influence upon soul and body, remain to be noticed in this place.

Labors of Benevolence.

In selecting our amusements, we are not at liberty to forget, that we are moral and accountable beings: and that *whether we eat, or drink, or whatsoever we do, we are bound to do all to the glory of God.* Happy, therefore is that man,

who finds some branch of active benevolence, the only amusement that he needs.—When the exercise of benevolence is congenial to the taste, and the student can find a field opening before him, he may be sure that such an employment is the very best recreation he could choose. For the consciousness of doing good puts the soul into just that happy state, which is most favorable to the free play and security of its frail tenement.

Other amusements.

But it is not always in every man's power, who chooses it, to find such a pleasant field for benevolent effort, when he needs relaxation from study. He must therefore, choose between those amusements which are within his reach. And here the first and most important point is, to make such a selection as will be most favorable to virtue. For unhappily, some very popular amusements, either possess in themselves a positive tendency to corruption of morals, or are so closely associated with excess of some kind, as to be dangerous to innocence, however well fortified by principle. For example, the practice of dancing is in itself a harmless recreation, and salutary to health; and practised in the patriarchal simplicity, in which we find it in some parts of the world, the most rigid moralist could scarce find fault with its influence. But in most civilized countries, it is so connected with unseasonable hours, the exhilaration of wine, spirit, and tobacco, and with lasciviousness, that every man who respects his own reputation, or regards the good of society, must resolutely abjure it. And the same remarks will apply, essentially, to those various games of chance, which are so perverted by avarice and unprincipled *harpyism*, as to prove to the young, enchanted ground: whose pits and quicksands they can escape, only by avoiding the spot.

Light Reading.

Among the amusements peculiarly appropriate for liter

ary men, is what goes by the name of *light reading*. I include in this term, all that is comprised in novels, plays, poems, newspapers, and periodicals. Indeed, it may include some branches of philosophy: for when a man permits his mind to shift from object to object, as it chooses, and just stops to sip a moment at the different fountains it passes, I should call this indulging in light reading: and some minds would be drawn to the retreats of philosophy or history, more strongly than to the bowers of fiction. Such reading as this, I should hardly dignify with the name of study; and yet, I fear that many professed scholars are acquainted with no other kind. But to indulge the mind of the real scholar in this discursive rambling, just to catch a little sweet from the flowers of literature, is certainly a most salutary recreation. True, it does not relieve the mind from thought: but it unbends it, and this is all that health requires:

“It is not thought—for still the soul’s employed—
’Tis painful thinking that corrodes our clay.”

Novel Reading.

Of the different kinds of light reading, unquestionably novel reading is the most dangerous. It occupies too much time to go through a whole volume at once; and to leave it half read, distracts the attention, and renders a man uneasy, while engaged in his regular task of substantial study. These works, also, produce too much excitement in the soul, and generally in the passions too—producing a morbid sensibility, unfavorable to strength and firmness of intellect. But I have not time to discuss this subject. Let it suffice to say, that other kinds of light reading, exist in such abundant variety, and are so attractive, as to preclude all necessity for resorting to any species, whose value and influence are at all questionable.

Social Intercourse.

Social intercourse is another most important means of

unbending the mind, and promoting the health. How often an hour's cheerful converse with friends or acquaintance, has scattered the darkest clouds of melancholy, every dyspeptic can testify. Nor is the influence of the intercourse hardly less improving to the mind, than study itself; although it is the study that renders the intercourse profitable. We are thus brought into direct contact with other minds, and learn how the subjects that have engaged us intently, are regarded by them; and some new views are most commonly elicited by such a discussion and comparison. It is literary society therefore, that is generally most profitable to the student: and he has a fine opportunity for such intercourse, living in the midst of so many companions, whose tastes and pursuits are congenial to his own. We need not wonder, therefore, that friendships formed in this manner, are among the purest and most enduring in life; and that the student never afterwards recollects his college friends, without strong and peculiar emotions.

The influence of social intercourse upon the manners, is another of its most valuable effects. But here I confess that students labor under a peculiar difficulty. For in order that the manners should acquire that refinement and delicacy which is desirable, virtuous and respectable female society is, I believe, indispensable. Men associating together alone, will not conduct towards one another with that respect and suavity which genuine politeness demands. There will be a grossness and roughness in their mutual treatment, which they would not dare to indulge towards a refined and respectable female. True, even this is better than dandyism; which shows its head sometimes even within college walls; and which I would not be understood as advocating; for this is the opposite extreme. It manifests itself in the wasp-like figure—the finical aspect of the whole dress and accompaniments—the watch chain—the breast pin—the tasseled cane—the exquisite cut of the hair—and above all, by the shallowness of the soul;—a characteris-

tic proving most conclusively, that this is an exotic within college precincts, and cannot flourish without a green house.

Music.

One other amusement only, I shall notice in this place.

“ There is a charm, a power that sways the breast ;
Bids every passion revel or be still ;
Inspires with rage, or all your cares dissolves ;
Can sooth distraction, and almost despair.
That power is music.”——

Cultivated at the proper season—that is, at the close of severe study, to calm and divert the mind ;—and not in defiance of law and good breeding, to disturb the stillness of the hours sacred to mental application, its effect is most happy. But its virtues have been so often celebrated, that I need only repeat the poet’s penegyric.

“ Music exalts each joy, allays each grief,
Expels diseases, softens every pain,
Subdues the rage of poison and the plague ;
And hence the wise of ancient days, ador’d
One power of physic, melody, and song.”

Concluding remarks.

I have now finished, young gentlemen, according as I have been able, the system of Diet, Regimen, and Employment, which I proposed to develope. In conclusion, I would occupy your attention a few moments in briefly bringing together the most important advantages that would result to literary men from its adoption into their practice ; although most of these advantages have been incidentally mentioned in the course of my remarks.

This dietetic system is a safe one.

In the first place, there is safety in adopting this system. Many, I know, will feel that the dietetical part, is little short of starvation ;—that the regimen is severe drudgery ;—and that the rules as to employment, are unfavorable to

a vigorous prosecution of knowledge. But after all, is there any one, who will contend that this system will shorten life? Death is making ravages all around us; but how seldom do physicians tell us, that excessive abstemiousness, or too close attention to regimen, is the cause! True, instances have occurred, in which individuals have actually starved themselves; but 999 out of 1000 die of repletion; yet the single case of starvation is more noticed, than the multitudes of an opposite character; simply because men wish to prove to themselves that abstemiousness is dangerous, that they may not be compelled to practice it. In spite of their wishes, however, long life and freedom from disease, are so generally the rewards of temperance and regularity in living, that they are unwillingly forced to acknowledge, that safety, if not happiness, does attend the adoption of the system for which I plead.

It is an antidote to poverty and crime.

Secondly, the adoption of this system by all classes of the community, would free most countries from nearly all their poverty and grosser crimes. And for this reason, that excess and extravagance are the original source of these evils in a vast majority of instances. Three fourths of the pauperism and crime in this country, result from intemperance in drinking; and probably the largest moiety of the remainder may be set down to the account of intemperance in some other respects. But in order that the lower classes in society shall practice rigid temperance, the example must be set them by the higher classes. And who so well calculated to take the lead in this matter as literary men?

It is favorable to health and longevity.

Thirdly, the thorough adoption of this system would preserve the life of the healthy, and secure them, for the most part, against acute as well as chronic disease, to extreme old age. Here again would I appeal to experience. Can there be an instance produced, in which persons in good

health have found the practice of temperance to be productive of disease and early debility ; unless it were pushed to a degree of rigor for which I have not contended ? On the contrary, have I not brought forward a multitude of instances in which continued health, cheerfulness, and happiness have attended the practice of this system of temperance to extreme old age ? I have a right, therefore, to conclude, that such would be its effects in every case, were it faithfully adopted. That is to say, two of the greatest blessings of this life—health and longevity—would be the rich reward of following out the system.

“ Some will tell us,” says Cornaro, “ that old age is no blessing ; that when a man is past seventy, his life is nothing but weakness, infirmity, and misery. But I can assure these gentlemen they are mightily mistaken ; and that I find myself, old as I am, (which is much beyond what they speak of,) to be in the most pleasant and delightful stage of life.”

It is such an old age as Cornaro’s that results from temperance ; and not the “ labor and sorrow,” the fretfulness, melancholy, and infirmity, which are the lot of all the aged who, in any respect, violate the laws of temperance.

It would cure most chronic complaints, and mitigate those that are incurable.

Thirdly, the adoption of this system would cure most chronic complaints, particularly nervous maladies, or render those subject to them more comfortable, prolong even their days, and smooth their passage to the grave. Most chronic maladies are brought on by overworking some part, or the whole, of the system. It is rational, therefore, to conclude, that by suffering the fatigued organs to rest as much as possible, for a time, they would probably recover their original strength. Temperance gives them this rest ; or requires them to labor only enough to keep the animal machine in play—demanding no superfluous effort. The consequence is, that if the disorder under which a man la-

bors, be curable, temperance will cure it. And it has cured many when medical skill had exhausted its powers in vain. But if the constitution be too far reduced, and actual organic disease has proceeded very far, it may be too late for any thing but a miracle, to save a man from the grave. But even in such a case, rigid temperance will alleviate the symptoms, enable the powers of life to hold out longer, and give finally a gentle discharge from life. Even then, if the invalid is not sure of restoration to health, by the adoption of this system, he may confidently calculate upon most important benefits from it. For when we feel disease to be triumphing over nature, how great a blessing do we deem a respite of even a few months, especially if it be accompanied with superior tranquillity of mind, and followed by a release from life comparatively easy and peaceful.

It would free men from most of their pains and diseases.

Fourthly, it follows, that the adoption of this temperance system, would free men from the largest proportion of those pains and diseases that now afflict them. For it is the neglect of these rules that brings the greater part of these sufferings upon us. True, some causes of disease and pain would remain, were men perfectly temperate and regular: such, for instance, as some of the unsubdued passions, which temperance would not restrain; various unavoidable accidents, &c. But after all, it is intemperance and irregularity of some kind, that are the most prolific sources of disease and suffering. Few, indeed, will believe this; but it is not for want of proof;—and whoever lives in the millenium, will probably have before him an ocular demonstration.

It gives strength, and sustains privations and hardships.

Fifthly, the adoption of this system would greatly increase the power of sustaining privations and hardships of all kinds. It is not the men of full feeding and full muscle, whose appearance is healthy and vigorous, that can ordinarily sustain the severest labors, vicissitudes of weather and climate,

hunger, thirst and nakedness. The lean Arab will go through hardships without injury, that would destroy such a man. For such a man's constitution is predisposed to disease, and will sink under the first shock; whereas temperance and coarse fare have hardened the Arab's system, so that disease is almost a stranger to it. What but a change in his habits of living, from excess and indolence to rigid temperance and active labor, could have sustained Howard so long in his fearless exposure to the filth and contagion of so many prisons and lazar houses? "Accustomed," says his biographer, "to the most rigorous temperance, so as to discard from his diet animal food and fermented liquors, he found no difficulty in living in the poorest countries; and he endured hardships of every kind without repugnance." It is this system, incorporated into all the habits, that can alone preserve the traveller and the missionary who visit unhealthy climates, and are exposed to a thousand privations and dangers. If there be any before me, who are looking forward to either of these enterprises, may I not hope that this fact will make a deep impression upon them. They may, indeed, go to foreign lands, unprotected by the habits I am urging them to adopt; but disease and death will soon terminate their usefulness and their lives; whereas rigid abstemiousness would have built up around them a wall of defence which might secure them for a long period. Let the young man who is not convinced of the truth of these remarks, consult those medical writers who have treated of this subject, and he will no longer doubt. Of all men in the world, perhaps the youth who is training for the missionary work, needs to be the most temperate in his diet and the most attentive to his habits.

It increases mental power.

Sixthly, the adoption of this system would exceedingly increase the ability of sustaining mental labors, and give new energy and clearness to the mind. There is as much difference in the movements of the mind, with and without

these habits, as there is in the motions of the limbs, with and without a heavy load upon the shoulders. Intemperance, either in food, drink, or study, oppresses the mind, as much as such a load does the body. Hence the mental powers work, if I may so express it, at a great mechanical disadvantage ; and the effort soon exhausts. Whereas, rigid temperance removes this clog, and the intellect not only operates with greater freedom, but can keep in play much longer without exhaustion. Hence it is, that the temperate scholar, although he may want fulness of muscle, can sustain double the amount of literary labor, that he can who depends upon stimulating food and drink for sustaining his energies.

It checks the passions.

Eighthly ; rigid temperance is the most effectual check, next to religion, upon every inordinate animal indulgence. Excess in eating and drinking and a deficiency of exercise, are the fuel that feeds every unhallowed animal appetite and desire. At least, without this excess, they would burn only with the gentle flame, that warms, while it does not consume the system ; and which spreads no conflagration around.

It cures morbid feelings.

Ninthly ; the adoption of this system would cure most cases of melancholy, despondency, fretfulness, and discontent ; and substitute tranquillity and equanimity of mind, cheerfulness and contentment. The man who is subject to dejection of mind, irritability of temper, jealousy, and fickleness, (and this is the case, more or less, with every dyspeptic,) has only to make a thorough trial of this system, in order to have the most gratifying conviction of the truth of this statement. A thorough trial I say : for many, who adopt it only in a very imperfect manner, remain as much the slaves as ever, to these gloomy feelings. But he who adopts the plan in earnest, will be most agreeably surprised, to find a cheerful, contented, equable state of

mind, succeeding the contrary one ; and producing so much happiness as amply to repay him for all his self-denial, and to strengthen him in the course he has begun.

It is favorable to the religious affections.

Tenthly ; The adoption of this system would operate most favorably upon the religious affections and exercises. A severe attack of dyspepsy rarely fails of being accompanied by religious despondency ; and very much of the stupidity, languor, and sluggishness, of which Christians complain, is merely the effect of overloading the digestive powers, and neglecting a due amount of exercise. Persuade a man to change his habits, to live abstemiously, and to take vigorous exercise, and the cloud will pass away from the mind ; devotional exercises will become pleasant and profitable : lively apprehensions of divine things will be experienced ; and a cheerful hope of the favour of God will be kindled up afresh in his bosom, encouraging him forward in the path of duty. He will be surprised at the change ; and be convinced that the melancholy and hopelessness, and stupidity, which he formerly imputed to his constitution, and unavoidable disease, are, in fact, merely the effects of an excessive and sinful indulgence of appetite. And now that his eyes are opened on the subject, he will see, that to continue such indulgencies, will be doubly criminal.

This part of the subject is extremely important, and deserves the solemn consideration of every Christian. “ *Take heed,*” says their Master, “ *lest at any time, your hearts be overcharged with surfeiting and drunkenness.*” It is your hearts, remember, that are here described as borne down, or oppressed, (*βαρυω—gravo—premo,*) by excess. And if men persist in thus enslaving their spiritual, to their animal nature, God often does with them as he did to the ancient Israelites, who lusted for flesh ;—*he gave them their request, but sent leanness into their souls.*

“ Whereas many embrace a holy and contemplative life,” says Cornaro, when 95 years old, “ teaching, and preaching

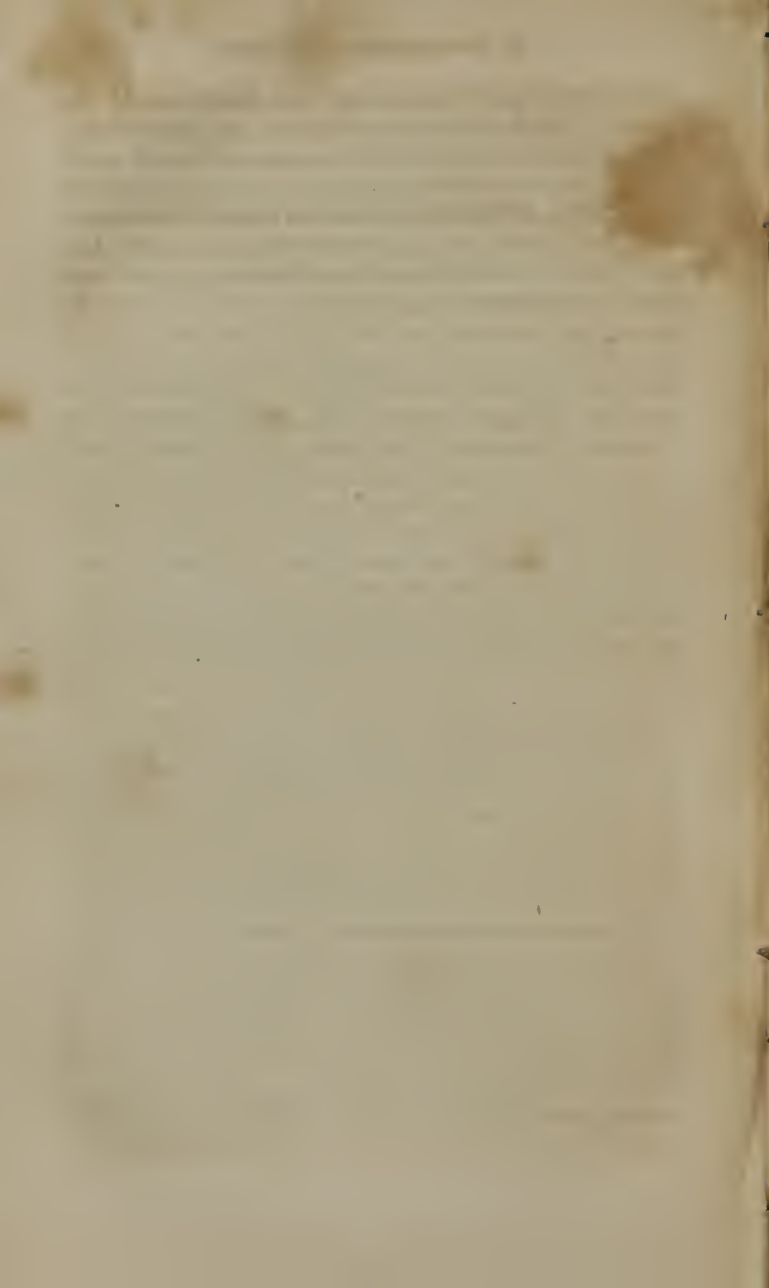
the great truths of religion, which is highly commendable—O that they would likewise betake themselves wholly to a regular and temperate life! They would then be considered as saints indeed upon earth, as those primitive Christians were, who observed so constant a temperance and lived so long. By living like them to the age of one hundred and twenty, they might make such a proficiency in holiness, and become so dear to God, as to do the greatest honor and service to the world; and they would besides enjoy constant health and spirits, and be happy within themselves; whereas they are now too often infirm and melancholy. In short, if all religious people were strictly temperate and holy, how glorious a scene should we then behold! such numbers of venerable old men, as should create surprise. How many blessings might they shower upon the earth! and not as now, eating and drinking so intemperately as to inflame the blood and excite worldly passions, pride, ambition, and concupiscence, soiling the purity of their minds, checking their growth in holiness, and in some unguarded moment, betraying themselves into sins disgraceful to religion, and ruinous to their peace for life.”*

It prolongs life and increases usefulness and happiness.

Finally; the adoption of this system, would greatly enlarge the sphere, and prolong the duration, of a man’s usefulness and happiness. It would lengthen out his life, and give him greater power to labour during all his days. Thus might he accomplish much more, in which he should engage. If he places his happiness in the accumulation of property, or knowledge, or reputation, or in promoting the cause of religion, temperance would thus increase his facilities for the attainment of his object. It is, indeed, the grand secret of success in any laudable pursuit: for a temperate man is always an industrious man: and an industrious man, with tolerable health, is the most happy man; especially, if he be engaged in benevolent efforts.

* Dagget’s Cornaro, p. 32.

But I need not dwell any longer upon the utilities of this system. If those already pointed out, do not influence my hearers to adopt it, I know of no arguments that will avail. If they have not resolution enough, nor religion enough, to restrain their inordinate appetites, and conquer their intemperate habits, they must go on and abide the result. And what is that? *Know thou, that for all these things, God will bring thee into judgment.*



PART IV. DYSPEPSY.

LECTURE IX.

NERVOUS MALADIES: *knowledge concerning them important. Their general character and designations.—Their Effects: 1. Upon the body; 2. Upon the intellect; 3. Upon the heart; 4. Upon society. Extent to which these maladies prevail. Conclusion.*

Object of this Lecture.

To cure and prevent nervous maladies, you are aware, Gentlemen, has been the grand object I have had in view in these Lectures. Yet I have given no regular and distinct account of the nature, or effects, of these complaints. And it seems to me, that it would leave too great a chasm in the subject, to close without attempting this. It is not my object, however, to do it in the technical phraseology of the physician; but in such a manner as is best adapted to the wants of every intelligent man, who has no professional acquaintance with medicine.

Knowledge on this subject thought to be injurious.

I know, indeed, that many regard all attempts to enlighten men on this subject, as injurious in their tendency. It is supposed that the effect will be, to lead many to conclude themselves sick, who otherwise would never have known it: and such will set up for fashionable invalids, when indolence and indisposition to study, are the amount of the difficulty. Hence it is thought better for students to let

medical works alone ; lest they should bring on the very maladies they would avoid.

Advantages of such knowledge.

That men, under the influence of certain forms of these complaints, and in certain stages, are liable to entertain exaggerated apprehensions concerning their disorder and their danger, I readily admit : but in such a case, their error lies in a too limited acquaintance with the character of diseases ; whereby they are led to imagine themselves afflicted with those of the most terrific character. But more accurate acquaintance with nervous maladies, will teach them, that they mimic almost every other disease, though they are rarely changed into other disorders, unless long neglected and aggravated. Now what advantage can there be in remaining ignorant of these facts ? If nervous complaints in their early stages, can be readily and effectually conquered, and in a more advanced state are very difficult to be brought under, can a man know too early that they have assaulted him ? Especially, if they are to be met and overcome, not so much by the physician's emetics, cathartics, and tonics, as by diet, regimen, and employment ; is it not important, that he know how to distinguish accurately their earliest vestiges ?

Ignorance with the name of knowledge.

It appears then, that it is not knowledge on the subject of nervous maladies, that is dangerous ; but ignorance, under the name of knowledge. If a man, altogether unacquainted with medical science, plunges, without a guide, into a pandect of medicine, and expects to ascertain what particular disorder he is labouring under, by comparing his nervous feelings with the symptoms therein described, it is to be expected that he will be injured ; simply because he will not know enough of medicine, properly to discriminate between so many diseases. But if dyspepsy alone be the object of his examination, and its effect on body and mind be

accurately described, there can surely be little difficulty in any man's determining whether he be affected with it; certainly, if it has really assailed him. And where can be the injury, in letting a man know his real condition, who is dyspeptic? Will it excite unreasonable and extravagant fears, and lead him to suppose his case much more alarming than it is? This surely cannot be the case, if he acquires a correct knowledge of dyspepsy: for this will show him, that this complaint, in its earlier stages, is merely a slight derangement of the digestive organs; which scarcely deserves the name of a regular disease: that it is by no means dangerous: and that it requires little else, than attention to diet and regimen, to throw it off: and that even if it continues, it does not usually endanger life seriously, for years; unless it be aggravated by peculiar causes. He will learn too, that unreasonable fears, despondency of mind, and dismal forebodings of evil, are among the symptoms of this complaint; and hence he will be led to guard against them; especially when he learns that the real nervous invalid is commonly less liable to violent and fatal disorders, than those in vigorous health; unless it be after years of suffering. In short, such knowledge will put his disorder almost completely in his power, with only the occasional advice of a physician. And can such knowledge as this be injurious? Is it not all important? Is not the want of it, the grand reason why so many literary men suffer dyspeptic habits to be inwrought into their constitutions, before they take any effectual means of resisting them? Does not every such man, when his eyes are at length opened upon his true condition, lament most bitterly that he has been kept so long ignorant of his maladies and their remedy; and feel almost sure, that early knowledge on the subject, would have been his salvation? The most able physicians, at the present day, lament that there is such a deficiency of medical knowledge, even among educated men. "It is much to be wished," says one, "that men of education and information in our country, had more generally some knowledge of

the principles of medicine. A general knowledge of the human frame, of physiology and the animal economy, of the obvious phenomena of diseases, and the outlines of their principles and treatment, of the general rules of diet and regimen, both in health and sickness, constitute some of the most interesting subjects, in which a man of a philosophical turn of mind can engage.”* “On the supposition that hygiene and physiology were to constitute, as they ought,” says another, “a part of a liberal, academic, or collegiate education, less objection would apply to the amateur reading of medical works”† “The time will certainly arrive,” says a third, “when medical philosophy will form a very important part of general education.”—“A well informed mind upon the principles of health and disease, by a knowledge of the causes and the effects of maladies, will be certain to acquire considerable power over events: knowledge gives power and resolution also.”‡

Nervous complaints—their various designations.

Nervous maladies belong to an advanced, and more especially, to a luxurious state of society. Savages, and men whose lives are chiefly spent in active pursuits, in the open air, are rarely troubled with them in the slightest degree. Even in Europe, they were little known 150 years ago. “Sydenham, at the conclusion of the seventeenth century, computed fevers to constitute two thirds of the diseases of mankind. But at the beginning of the nineteenth century, we do not hesitate to affirm,” says Dr. Trotter, “that nervous disorders have now taken the place of fevers, and may justly be reckoned two thirds of the whole, with which civilized society is afflicted.”§ But notwithstanding their prevalence at this day, physicians cannot yet invent a name for them, which shall convey just notions of their character.

* Christian Spectator for March 1830, p. 79.

† Journal of Health, vol. I. p. 197.

‡ Manual for invalids, p. 10—47.—See also Note I. I.

§ Nervous Temperament, p. 13. Introduction.

Hence they are known under a variety of terms. "Of all these designations," says Dr. Johnson, "*Indigestion* has been the most hackneyed title, and it is in my opinion, the most erroneous. The very worst forms of the disease, (that is, certain cases of *hypochondriasis* and melancholy,) forms in which the body is tortured for years, and the mind ultimately wrecked, often exhibit no signs of indigestion.—Nearly the same objection lies against the term *Dyspepsia*, or difficult digestion. The term *Hypochondriasis*, conveys no just idea of the nature of the disease, though a group of some of its more common phenomena is usually understood by that term—*Bilious disorder* is a term equally vague and equally erroneous as the others.—Of the various other designations, as spleen, vapors, melancholy, nervousness, irritability, mental despondency, &c. I need only say, that they are forms or features of a disorder that assumes almost all forms. Hence my sagacious friend, Dr. Marshall Hall, not inaptly applied to this class, the generic name *Mimoses*, or imitators; an appellation which is very significant, but which, of course, conveys no idea of the nature of the malady." Dr. Johnson himself, employs the phrase, *Morbid Sensibility of the Stomach and Bowels*, to designate these complaints.*

Varieties of nervous maladies.

Some writers divide nervous maladies into several varieties, distinguished by some peculiarities of symptoms. Thus, *hypochondriasis* is generally regarded as distinct from *dyspepsy*: the latter being the common form of indigestion, and characterized by difficult conversion of food into nourishment. The *hypochondriac*, on the other hand, often makes no complaint of difficult or imperfect digestion: still, he is troubled by severe nervousness, and the faculties of his mind are much more powerfully affected, than in simple *dyspepsy*; so as sometimes to terminate in insanity, partial or universal. But these varieties of the general disorder, pass into one another by imperceptible shades;

* *Morbid Sensibility of the Stomach and Bowels*, p. 53.

and are probably in most cases, dependant on the same cause, viz. "a disordered condition of the gastric and intestinal nerves; in which their natural sensibility is changed, being morbidly acute, morbidly obtuse, (torpid) or perverted."*

Instead of occupying time in physiological discussions concerning the nature of nervous complaints, my purpose is to devote this lecture to a description of their effects upon the body—the intellect—the heart—and society.

First, their effects upon the body.

Symptoms.

Every man, who has ever eaten too hearty a dinner, knows something of the symptoms of dyspepsy: for though such excess be rather a fit of intemperance than indigestion; yet the symptoms are essentially alike. A sense of weight, fullness, and uneasiness, is felt in the stomach, some time after eating. Eructations of disengaged air take place, often with a sensation of acidity, or heartburn. Sometimes nausea and chilliness succeed; and generally lassitude and drowsiness come on, accompanied by a considerable degree of feverish heat. Sleep, during the subsequent night, is disturbed and unrefreshing; attended by dreams and incubus: and on the following morning, the head aches, the spirits are sunk, the nerves are unstrung, the tongue is furred, and the bowels often disordered. These symptoms commonly ere long pass away, after giving a man a foretaste of dyspepsy in its milder forms: and probably there are few men among the healthy, whose experience cannot testify to the truth of this statement: for "nine tenths of men in civilized society," says an observing physician, "commit more or less of this intemperance every day."

* Morbid Sensibility of the Stomach and Bowels, p. 67.—This is essentially the view taken of the philosophy of this subject by the ablest physicians, and it is certainly far more lucid and satisfactory than the confused notions of most English writers.—

From whatever cause confirmed dyspepsy proceeds, it creeps on gradually and insidiously. Suppose the individual be a student, who is daily in the habit of indulging too freely at the table, or who neglects appropriate exercise, or is too much devoted to his books. For a season, he feels only an occasional, it may be a daily, recurrence of the symptoms I have described. But these gradually increase in severity. His headaches are more frequent and abiding: his bowels are generally costive; though when relieved in this respect, disposed to an opposite condition. To remove the constipation, he resorts to drastic medicines; which, indeed give relief for a short time, but not permanently. His strength begins gradually to decline, and he feels an almost unconquerable disposition to inaction, especially after meals. His countenance assumes a pale, or yellowish aspect; his tongue is almost constantly furred; and frequently—particularly in the morning—an unpleasant taste is perceived in his mouth; accompanied, it may be, by nausea. Heartburn, flatulence, and colic, are experienced; unpleasant dreams, and even nightmare, are not unfrequent. Sometimes, partial numbness of some part is felt for a day or two: he finds it difficult to keep his hands and feet warm, in the early part of the day; but after dinner, a feverish heat oppresses him, with extreme languor. Dizziness, with noise in the ears,—nervous twitchings of the muscles; shooting pains in various parts; dimness of sight; palpitations of the heart; emaciation, in a greater or less degree, &c. &c. are no uncommon sympathetic affections.

Course generally taken by the dyspeptic.

The student who has such symptoms, is an established dyspeptic; and he finds that his studies now become irksome, and his mind and his feelings are affected no less than his body. He becomes alarmed—tells his tale of suffering to every one he meets—consults physicians of all sorts—and follows every kind of prescription, except attention to

diet, exercise, and employment. Pills, tinctures, cordials, bitters, &c. affording a temporary relief, because they alleviate his symptoms, are most diligently employed; until after a long time he finds that they aggravate his complaints, though they cure symptoms. He is now told perhaps, of the necessity of paying some attention to diet and exercise; and he begins by discarding some particular articles of food, and taking longer walks. But as to the quantity of his food he does not think it will answer to reduce this much, because his kind friends tell him, that he must try to keep up his strength as much as possible, by a good supply of nourishment; and this advice is moreover exactly agreeable to his inclination; since his appetite, instead of diminishing, has become much better than formerly. It is, however, somewhat capricious; and what seems to agree well with his stomach to-day, disagrees to-morrow; and so he changes from one article to another, at least once a week, always imputing the bad effects of his diet to the kind, and not to the quantity. For how can it be, that he eats too much, when he feels so faint the greater part of his time; and could eat twice as much as he does. In this way, he worries through the term of study; calculating upon vacation in which to recruit himself. Vacation comes; and the change of objects, and more exercise abroad, and less study, do indeed exhilarate his spirits and afford no small relief. But his appetite gains strength also, and he indulges it freely; and when he returns again to his studies, he lays but little restraint upon his palate, having become satisfied that the starvation system will not answer for him, since full feeding has served him so well during vacation. Flesh, fish, and fowl, therefore; gravies, sauces, and condiments; butter, pies, and cakes, and it may be, wine and brandy, are the grand anti-dyspeptic restorative mixture which he employs; and in one or two weeks, he is quite as deep in the mire as ever. Some physician or friend now faithfully states to him the absolute necessity of rigid attention to diet and exercise; insisting upon it, that he must eat only

of one dish at a meal, and but a small quantity of that dish ; and altogether abandon stimulants and narcotics.

Turning point with the dyspeptic.

The dyspeptic has now reached a critical period in his course. If he listen to the voice of conscience, which seconds this advice, and persevere in a course conformed to it, he will, in almost every case, be gradually, though it may be very slowly, restored to health and happiness. But if appetite prevail over reason, and he still resolves to indulge the palate ; or if, after having commenced a course of abstemiousness, he grows weary of the self-denial, and not immediately deriving from it the benefit he had expected, he gives up again to appetite the reins of self-control, then his subsequent history will be only that of a melancholy, misanthropic, neglected hypochondriac. It may be that through the kindness and influence of literary friends, he will be smuggled into professional life. But it will be only to make a few inefficient, unnoticed efforts, producing mortification and disappointment to his friends, and drawing from the world only the acknowledgement, that he is an unfortunate man. For the dyspeptic symptoms I have described, will gradually gain strength, while the resistance of his constitution will become weaker and weaker. Formerly his sufferings were only occasional, but now he is rarely at rest. Although the essential symptoms of his complaints remain nearly the same, yet so many changes are wrought upon them, and so many new pains and morbid feelings are continually springing up, as to produce an almost incessant state of alarm ; and the apprehension that some dreadful malady has seized him, which will shortly end his days. Indeed, at this advanced stage of the complaint, these fears are not altogether groundless. For there is a constant tendency in his system to organic disease. For years, dyspepsy is a disorder of function merely ; that is, certain organs do not properly perform their office ; although they are merely weakened, but not oppressed with

any actual disease. But disorder of function will ultimately produce organic disorder: that is, some one organ will be attacked in its structure, and be actually destroyed, if the attack cannot be repelled; and most generally in such a case, life itself will be destroyed too. For the organs most liable to be attacked by long protracted nervous maladies, are the brain, the heart, and the lungs—the three grand centres of life. The system of the dyspeptic, when his disorder has advanced thus far, may be regarded as a besieged place. To-day the enemy pushes his assault against one point, and to-morrow against another; always selecting the weakest. Now all his energies are brought to bear upon the heart; and then appear palpitation, dyspnœa, and other symptoms of angina pectoris, one of the most terrible of all maladies. At another time he assaults the brain; and then come on violent headache, vertigo, and other premonitions of delirium, palsy, and apoplexy. When the lungs are assailed, the cough, the hectic, and difficult breathing of consumption, technically called “dyspeptic phthisis,” succeed. So long as there is energy enough left in the constitution, to repel these assaults, the threatening symptoms of the several diseases gradually disappear. But worn out at length by long protracted resistance to repeated attacks, some one point gives way, and speedily the whole citadel is in ruins.

Thus essentially have many of the noblest geniuses and most upright men lingered, and suffered, and died. They have fallen victims to their early ignorance of their complaints, or to their wedded attachment to the indulgence of their appetites. Having lived in perpetual violation of the laws of nature, the inevitable retribution has been terrible. I have followed out the melancholy history of its effects upon the body, until death has closed the scene. But after all, the mental sufferings and decay resulting from nervous maladies, are of a character still more painful. I proceed

In the second place, to give an account of those effects upon the mind.

On the memory.

One of the first marks of superannuation, is a failure of memory ; and this faculty also, earliest and most distinctly manifests the inroads of nervous maladies. In the latter case, however, there is a singular capriciousness of memory not observable in the former. The most impressive and interesting circumstances which the man supposes indelibly fixed in his mind, suddenly and strangely pass away, like the morning cloud ; while those facts and objects that are of little importance and disagreeable, seem to be written on the tablet of the memory with a pen of iron and the point of a diamond.

Power of attention and abstraction.

The nervous invalid will also early perceive, that he is losing the power of attention and abstraction. His mind may have been thoroughly disciplined in the school of mathematics—of all means the most certain and effectual, to give a man the mastery over his thoughts—and yet he will find that the Circean rod of dyspepsy has more than counteracted the influence of science. For a time, perhaps, he may struggle successfully against this erratic disposition of mind ; and by increasing the centripetal force, balance, in a measure, the centrifugal. But such mental efforts only weaken the corporeal powers still more, and render every successive trial to chain the attention more arduous. In this way, that is, by often repeated efforts to force the mind up to the work of attention and abstraction, has many a man riveted the chains of disease upon himself through life ; and so prostrated his energies, that the mind became the sport of every nervous feeling. Was he a mathematician ? the pursuit must be abandoned ; for patient and fixed thought are no longer within his power. Did he delight in tracing mental phenomena to their sources, and in the metaphysics of theology ? his leaden wings cannot longer bear him so high nor guide him aright.

In this case, however, we find the same capriciousness in

the power of attention, as of memory. Upon his own sufferings and the evils that hang over him, the mind of the nervous invalid fastens with painful, and a sort of involuntary intentness. He may force himself into pleasant society, or mingle in the bustle of the city, or range over the hills and dales of the country, even when they are clothed in vernal loveliness; yet will the mind turn away from all these alluring objects, and brood with morbid interest over its own woes, and conjure up a thousand terrific images, which, like so many incubi, sink the soul into the dust.

Irregularity in the mental operations.

Extreme irregularity in the mental operations, is another characteristic effect of nervous complaints. Let the nervous man become exhilarated by propitious occurrences in his temporal prospects, or by abstinence from his usual inordinate quantity of food; or by some stimulating, or narcotic substance; and his intellectual movements will seem to be most clear and most rapid. They will resemble, however, the running down of a watch, when the balance wheel is removed; producing few valuable results, and exhausting the system. For if a man examines his mental labors at such a time, he will find them incoherent and unsatisfactory; a few diamonds buried amid loads of chaotic rubbish.

On the other hand, when the dyspeptic horrors settle down upon a man, after having loaded himself with food or drink, or neglected appropriate exercise, or met with some adverse occurrence, the mental torpor corresponds to the corporeal; and he finds it an intolerable hardship to spur up the mind to any successful effort. He bends over his classics, or his mathematics; but all is fog—all is confusion. Or if a glimpse of light break into his dungeon, it seems swallowed up by the darkness, and leaves no abiding impression.

Effects on the imagination.

It is the imagination, however, that probably suffers most from nervous maladies ; though this influence is not usually so obvious to the invalid himself. For to him the distorted and magnified images of fancy, are undoubted realities ; and while others perceive many of them to be but “ the baseless fabric of a vision,” he rarely discovers their extravagance. In the hypochondriac these strange workings of fancy often shoot out into the most monstrous distortions ; and in fact, constitute the essence of his disorder. They make him the butt of ridicule ; and indeed, no risibles but his own, can remain unmoved by the strangeness and extravagance of some of his imaginations. When we see a man, (as some have done,) firmly believing himself made of wax, and dreading, on that account, to approach the fire, or fancying that his bones have become soft like tallow, and therefore not daring to trust his weight upon them ; or pining away through fear of want, while he is actually wallowing in opulence ; or wilder still, when we see such a man as Simon Browne, writing an able defence of revelation, and yet, in the dedication of his book to Queen Elizabeth, declaring with the utmost sincerity of belief and distressing anguish, that “ by the immediate hand of an avenging God, his very thinking substance has for more than seven years been wasting away, till it is wholly perished out of him ;”—when we see such delusions, we cannot but smile, even though compassion for a soul in ruin, would teach us rather to weep. But such cases are the very extravagance of hypochondriacism ; or rather they are decided mental derangement—to be pitied, not ridiculed ; and the experience of most dyspeptics has in it nothing approaching such wildness. Still, in probably every case of these complaints, there is no small play of a morbid imagination. The soul, turning away from the lovely visions which hope would paint on the future, fixes her eye alone upon the scenes which timidity and despondency have drawn with sombre hues ; or, as the poet says,

"Fear shakes the pencil; fancy loves excess,
Dark ignorance is lavish of her shades;
And these the formidable picture draw."

Dyspeptic dreams.

If such be the waking visions of the dyspeptic, we might calculate that his real dreams would exhibit the wildest riotings of fancy. And her images in sleep, are nearly always disgusting or terrific. She opens the grave and digs up the mouldering and festering dead; she descends into the world of despair, and plunges her captive victim into the burning lake; now she hurries him over the tumultuous waters, or sinks him choking beneath the dark waves; anon she drags him to the brink of some dizzy precipice, and casts him over; now she plants him on the battle field, and there transfixes him with the bullet, or the sword; or leaves him to sink in unequal contest with the solitary murderer, rushing from his ambush. She even immures him in prison, and then drags him to the scaffold, there to suffer with the dreadful consciousness of crimes, from which, when awake, his soul would shrink with horror.

Effects on the judgment.

If the individual faculties of the mind be thus powerfully affected by nervous maladies, the judgment most obviously will be subject to a correspondent deflection. If sensation convey erroneous impressions to the understanding; if memory retain only a partial and indistinct view of facts; if the power of attention be partially wrested from the hands of reason; and a peculiar obtuseness of intellect be manifested towards some objects, and a morbid acuteness towards others; and if the reins be given up to a disordered imagination; what is the judgment, that it should form correct conclusions, when the guides to its decisions are all gone out of the way? It makes no difference, though the nervous man's impressions are many of them mere spectres; for to him, they are realities, exerting over him the same influence as if there were no delusion.

The mind sinking into ruins.

Upon the whole, these mental effects of indigestion, are the worst part of the disease. So long as the intellect remains unshattered, a man can see, with comparative composure, his bodily powers gradually yielding to decay: but to perceive the immortal part losing its energy—the memory failing—the power of attention and discrimination weakening—the imagination giving to almost every object a false coloring—the judgment clouded and erratic—in short, the whole mind sinking into fatuity—who, but those that feel it, can tell the anguish of such experience? True, the invalid may suppose the inroads made upon his mind, deeper than they are in reality; yet even the mildest attack of these complaints does influence, weaken, and confuse the mind; and sometimes the mental powers do so sympathize with the corporeal, that before death closes the scene, mere idiocy is all that remains of a once powerful and noble intellect.

In the third place, I shall speak of the effects of nervous maladies upon the heart; or the passions and affections.

Despondency and Melancholy.

Every man, who has seen a nervous invalid, knows, that despondency and melancholy are elements of his character: for their gloomy lines are depicted even upon his countenance. Though he be surrounded and caressed by all the kindness and sympathy of the most sincere friendship and affection; though external prosperity, peace, and plenty, bear him along upon their full unruffled flood; and even though some cheering intelligence may have just reached him; yet if the fit overtake him, not all these buoyant circumstances can keep him from sinking into the mire; until the digestion of his too hearty meal be over, or the north easterly, easterly or southerly wind be succeeded by one from the northwest; bringing with it a return of sunshine, and inducing him to go abroad to inhale the purified air, and to throw off the morbid and acrid secretions, that pro-

duce his melancholy. Then the cloud passes also from his mind ; and a clear sky succeeds, until some physical or mental cause, again involves him in gloom. Yet as the disorder advances, these paroxysms of despondency usually increase in frequency and severity, until often they become settled, hopeless, melancholy.

Hope.

The deadly influence of such a state of mind upon the hopes of the invalid, must obviously be very great. I do not mean that this passion is totally extinguished in his bosom : for how then could life be tolerable ?—but it is so neutralized, as almost to cease to be a moving spring of action. In his ordinary worldly pursuits, he goes forward more from necessity, and a sense of duty, than in the expectation of success. But if he be a religious man, his prospects beyond the grave, stir up within him a more distressing anxiety. Once, he may have seen some evidence of personal piety : But now, he can see in his heart nothing but unbelief, murmuring, impatience and stupidity. Once, he thought himself at least sincere : but now he charges himself with hypocrisy, and with performing all his religious acts to be seen of men, or from a self righteous spirit. Justly, therefore, does he feel himself given over to a reprobate mind : and as he looks over the sacred record, his eye fastens with terrible self application, upon all those passages that describe the awful doom of one, who has resisted the Spirit of God, and is living only to fill up the measure of iniquity. Among these he classes himself : nor can you break the delusion, until you can unlock the iron grasp of dyspepsy.

Jealousy.

While the nervous man is thus suffering from despondency, another gloomy passion settles, like an incubus, upon his soul. It is jealousy. Disposed by his melancholy feelings to shrink from public inspection, when business or duty,

force him into an intercourse with a bustling and selfish world, he watches every word, and almost every look, with a strong suspicion that some insult, or unkindness, is intended against himself. He is ever fancying that some one is trying to injure him, or to insult him, or to wound his feelings. The least appearance of neglect, stirs up within him, the most bitter, and the most desponding feelings: And especially, if any of his groundless imaginations are treated with ridicule, it sends home a dagger to his heart: and even if his best friends do not listen with sympathizing attention to his oft repeated tale of suffering, he judges them to have become his enemies.

Misanthropy.

The effect of such a morbid state of mind is to produce a gloomy misanthropy; and to fix strong prejudices in the bosom against individuals. Those in stations superior to his own, he looks upon as oppressive and unjust in their requirements; and his equals, he regards as desirous of supplanting him. If he is counseled, he looks upon it as abuse: if he is exhorted to rise above his gloom and jealousy, he resents it; and retiring into himself, he broods with morbid relish, over his feelings, and cries out in the bitterness of his soul;

“There is no flesh in man’s obdurate heart,
It does not feel for man.”

Timidity.

Excessive timidity is another passion attending nervous complaints from their commencement. The mere throbbing of the temples, or a shooting pain, which the healthy man would scarcely feel, will sometimes produce such anxiety in the mind of the invalid, as to make him fear that his last sickness has come: and then his imagination will paint before him, all the terrors of the final struggle; the agonizing parting of friends; the failure of sensation; the ravings of delirium; the shroud, the funeral, and the dark

grave. And still worse, his hopeless prospects in futurity, will be arrayed in all their blackness before him, awakening intolerable forebodings, and realizing to him all the horrors of a hardened sinner's dying hour.

This is the most common channel in which the fears of the dyspeptic run. But when less agitated, and less oppressed by his disease, he looks no farther than this world, the prospect is gloomy. True, his property, his friends, his reputation, are not yet lost. But he fancies, that amid the gloom of the future, he sees the blow impending, that will, speedily sweep these blessings away.

Fancied Dangers the most dreadful.

It is a curious fact, that these apprehensions of the nervous man, are more strongly excited by trivial and fanciful causes of danger, than by those that are a real ground of alarm. And so his anticipated dangers and trials are far more dreadful to endure, than those which are present and real. He, whom the slightest unusual bodily sensation will make pale with alarm, will sometimes be found, patient and resigned, when disease has actually settled upon some organ, and brought him upon the bed of sickness. He, who lived in perpetual fear, lest poverty, or sickness, should visit his friends, or family, will be found, calm and collected, witnessing the flames devouring his habitation, or watching the sick bed of a dying wife, or child. So powerful magnifiers are distance and obscurity in fancy's telescope, that the merest mote in the field of view, seems to the mind an ominous cloud, overspreading the whole heavens.

Decision, Resolution, Fortitude.

This timidity, with the attendant melancholy of the nervous invalid, deeply affect his decision, resolution, and fortitude. He dare not decide, lest some tremendous consequence should ensue, that would furnish ground for long and unavailing repentance. Thus will he remain, halting between two opinions—one of the most painful conditions

in which a man can be placed. And so long as he is under the power of this indecision and irresolution, whether in respect to temporal or spiritual concerns, he must remain, not only one of the most inefficient, but most miserable of men. For it is vigorous action alone, that can impart happiness to the mind, whether engaged in worldly, or religious pursuits.

Anticipated Evils.

It is not so much real tangible evils that break down the dyspeptic's fortitude ; but rather the dark cloud which he sees hanging over the future ; the force of whose thunderbolts, when it bursts, he cannot predict. His quickened sensibilities have opened his eyes wide upon danger ; but they have also weakened his power of withstanding them. The unfortunate man seems, like the trembling aspen, to be shaken by every breath ; and to be crushed into the dust, like a bruised reed, unable to rise from his ruins. Philosophy may teach him lessons of firmness, and religion bid him trust in the overruling Providence of God, and wait calmly the event ; but alas, how feeble is even religious principle—the mightiest power on earth—in a soul that is borne away by an excited sensibility, an overpowering fear, and a gloomy fancy ! Much that goes under the name of Christian fortitude, would be found mere strength of nerves if accurately tested ; and much that is censured as weakness of Christian character, will appear at last, to be but the inevitable result of nervous maladies. So that, in fact, it would, in many cases, be more proper to congratulate the man of resolute fortitude, on the soundness of his nerves, than to celebrate the strength of his Christian character : and, on the other hand, we ought frequently to pity the man of irresolution and indecision, for the excessive sensibility of his bodily system, rather than blame him for want of faith and fortitude : though I pretend not to say, that men are generally without fault in suffering nervous maladies to creep upon them.

The Philosopher made superstitious.

This nervous timidity is seen sometimes to produce the singular effect, of rendering a philosopher and a Christian, somewhat subject to superstitious apprehensions. His religion and philosophy may both remonstrate against regarding unfavorable dreams, or remarkable natural appearances, as prognostics of personal misfortune, sickness, or death; yet when "he is all soul within, and all nerve without," his imagination is sometimes so excited by those occurrences, that he cannot wholly divest himself of the secret impression, that he may have been thus supernaturally warned of impending calamities. They will be apt to fasten upon his memory, for a long time, and haunt him from day to day, until he half believes them divine admonitions: and sometimes reason is overpowered, and the man fancies himself favored, or rather tormented, with visions and immediate revelations.

When the fears of the nervous man assume a religious character—as they do whenever such a man is religious—they put on a still more unhappy aspect. He, who dare not expect any thing prosperous in this world, will surely not dare to believe his name to be written in the Lamb's Book of Life. He, who cannot confide in any thing future on earth, will feel a like want of faith in the Divine Promises, as applied to himself. Thus will his religion partake more of the drudging service of slavery, than of the confiding, unsuspecting confidence of sonship.

Irritability and Peevishness.

Irritability of temper, or peevishness, is another characteristic effect of nervous maladies upon the heart. It is not however, in the early stages of these complaints, that this effect becomes obvious to the invalid himself. But even the man of phlegmatic temperament, in whom, when in health, patience and forbearance were scarcely virtues, and who never felt the need of a guard on this side of his character, after struggling for years with dyspepsy, finds

himself most imperceptibly betrayed into a hasty resentment of injuries ; and when insulted, perceives a counter tumult rising in his bosom, which is apt to break forth upon his adversary. Nay, he gets ere long to such a pass, that he cannot bear to be contradicted when the irritable fit is upon him ; and he will give vent to his spleen and ill humor, in spite of decency and religion. Jealous in the extreme, and oppressed with gloomy feelings, not even his best friends can escape the discharge of his ungoverned temper : much less can others escape ; and even the poor domestic animals, and inanimate objects around him, feel the fury of the storm. Misanthropic and dejected, he murmurs at the allotments of Providence ; considers himself maltreated by nearly all his fellow men ; and censures, with great severity, the failings of his brethren ; while any marks of superiority in a neighbor, or companion, awaken bitter envy in his heart. True, when the irritable paroxysm passes by, he has some sense of the entire contrariety between his feelings, and those which religion inspires ; and he repents of his wickedness : but ere he is aware of it, again is he overcome by the same temptations, and manifests the same unlovely disposition. This lays the foundation for still more bitter repentance ; so that he is rendered, not only a most uncomfortable companion, but most burdensome to himself.

Melancholy generally results from excess in diet.

This capriciousness and irregularity in the nervous man's feelings, are not only very characteristic, but in general, most unaccountable to himself. One hour, or one day, his whole soul may be calm ; his feelings unruffled and cheerful ; while the very next hour, or day, without the least change, as he can perceive, in his external condition, or that of his health, he finds himself borne down by melancholy and jealousy, and unable to bear the slightest trial of his temper, without exhibiting a high degree of irritation and fretfulness. Such a sudden transformation of soul is en-

tirely inexplicable to most nervous invalids: while those in health are hence led to conclude that these paroxysms of bad and anomalous feelings, result from no physical cause, but are merely unnecessary and sinful aberrations of mind; to be cured by moral means. But the fact is, these mental phenomena are almost in every case, the result of a fit of indigestion—Too much food; or of a bad kind; or too many sorts; or not sufficient exercise has been taken; and although the excess has not been great enough to produce any sensible disorder in the body, the irritation it produces in the nerves, powerfully affects the more delicate organization of the mind. “There is no effect of indigestion more common,” says Dr. Johnson, “than dejection of mind, when no corporeal inconvenience appears to follow—The mental despondency (in hypochondriacs) is invariably dependent on some disorder of the body, and in nine cases out of ten, it is immediately dependent on a morbid or irritable state of the nerves of the stomach and bowels. Of the truth of this I have had such multiplied proof, that not a doubt remains on my mind respecting it. It is as useless to attempt the removal of this mental despondency by moral means, or mere persuasion, as to remove a fever or an inflammation by argument. The attempt, indeed betrays a great ignorance of the real nature of the complaint.”* I have already mentioned in a former lecture, the case of the hypochondriac, who exhibited these mental paroxysms regularly every other day, because he could not be prevented from eating and drinking to excess every other day. And Dr. Johnson says, “I have known many instances where individuals, having this morbid sensibility of the gastro-intestinal nerves, experienced, after eating certain articles of difficult digestion, such a state of irritability of temper, that they were conscious of the danger they ran, by the slightest collision or contradiction from

* Observations on the Disease &c. of Invalids from Hot Climates.
—p. 16.

even the nearest relations : and therefore, avoided society till the fit went off. One gentlemen in this state always caused his servants to tie his two hands together, lest in the paroxysm of irritation (without any observable cause) he should cut his throat or otherwise commit suicide.”*

When are you most desponding and irritable?

If any who hear me, are subject to occasional dejection of mind, and irritability of temper, with more or less of those other effects on the mind, which I have described, as resulting from indigestion ; I would ask them, in the first place, whether they are not usually most free from suffering of body and mind, just before bed time ? If so, the reason certainly is, that then the food they have eaten during the day, is digested ; and consequently irritation is removed from the stomach and bowels. Again, if you eat a late and hearty supper, are you not subject the next forenoon, to dejection of mind, irritability of temper, and obtuseness of apprehension ? If so ; do not these effects evidently flow from excess in eating ? Once more ; are you not more likely to be melancholy, fretful, and incapable of study, Monday forenoon, than any other day of the week ? If so ; how can you doubt that it is owing to your having indulged your appetite too freely on the Sabbath, while you had less of exercise ?

These feelings often very sinful in the dyspeptic.

My object in putting these enquiries to the dyspeptic, is, to show him, first, that in most cases, it is in his power in a great measure, to get rid of melancholy, jealousy, a fretful temper, languor and imbecility of mind, and stupidity, simply by avoiding their most common cause, which is, excess in eating, or drinking. Let him, for instance, greatly reduce his diet on the Sabbath, and see whether his Mondays will be days of gloom, irascibility, and incapacity for study. And if he finds that a reduction of his food does

* Morbid Sensibility, &c. p. 106.

produce such an effect, then I would say to him, in the second place, that his mental dejection, irritation &c. are highly criminal. Dyspeptic as he is, he can in a great measure overcome these hateful feelings, and that imbecility of mind, which so unfit him for study, and for duty of any kind. God therefore, will not hold him guiltless, if he does not so restrain his appetite as to do this. His sin does not lie so much in the feelings themselves; as in their cause; for when the stomach and bowels are overloaded with food, such a state of feeling can no more be prevented, than a tooth ache; but a man, even if he be a dyspeptic, can eat less; and this will ordinarily preserve him in a pleasant state of mind and heart. If he will not do this, if he will not do it thoroughly, he ought to receive no sympathy, when he pours his tale of sufferings, as the nervous are apt to do, into the ear of friendship. For he is wilfully sinning against his body and soul, and against God. He will not restrain a mere bodily appetite, although it would immensely increase his power of doing good, and of advancing in knowledge and virtue. Why then is he not as guilty, as any other man, who is a slave to bodily appetites?

Irritability of Genius.

A striking trait in the character of eminent literary men, has usually been, a peculiar irritability of temper. It is well known that the ancients described an *irritable genus vatum*: and it has been the practice of modern writers, to dignify this unlovely trait of character, with the phrase, *Irritability of Genius*; and to regard it as a necessary accompaniment of a great mind. But I apprehend, that in most cases the least unfavourable account of the matter, which justice can give, is, to impute it to dyspepsy: since few literary men, given to close habits of study, escape this complaint entirely. And if the irascibility of dyspepsy, is, in most cases, criminal, because the result of excessive eating or drinking, so probably is the “irritability of genius.” Cicero, indeed, by a dexterous use of words, attempts to

show that this trait of character is usually to be imputed to goodness. Irritabiles esse animos optimorum saepe virorum, eosdemque placabiles ; et esse hanc agilitatem mollitiemque naturae plerumque bonitati tribuendam. It would come nearer the truth, I apprehend, to say, Plerumque dyspepsiae et voracitati tribuendam.

I proceed, in the fourth place, to point out the effects of nervous maladies upon society.

Societies and nations will be distinguished by the aggregate character of the individuals composing them. Just so far, then, as nervous complaints prevail in society, they will modify the characteristics of the mass. We have only, therefore, to suppose a community, in which the influence of these complaints is so great as to modify its character, and then infer their effects upon the whole, from their effects upon individuals.

The physical character of society affected by dyspepsy.

1. Their effects will be obvious upon the physical character of a community. Much as the nervous have to do with imaginary sufferings, they are by no means free from real bodily infirmity. Though the deterioration of strength and vigor be slow, yet who, that has seen the emaciated frame, and torpid movements of the dyspeptic, can doubt that the constitution is wearing down ; and every physical energy gradually sinking to decay ? Suppose now, that these complaints should so infect society, that its army and navy must be recruited from nervous invalids ; and its manufactures, commerce, mechanic arts, and agriculture, must depend upon such men to carry them on. How could such soldiers and sailors stand a moment against men of undiminished bodily power, and of courage undaunted by imaginary dangers. Nay, how inefficiently must even the common pursuits of society be conducted, by men of such withered muscle and irresolute souls ? Let the officers of government, in the legislative, executive, and judiciary departments, be nervous invalids, characterized by their fickle-

ness, irascibility, jealousy, and despondency, and who would wish to be among the governed?

Examples.

The pages of history give us abundant examples, illustrative of these suggestions. For no nation becomes rich and prosperous, without becoming also luxurious and debilitated. Now this luxury, intemperance in food, and drink, and living, infallibly produce nervous complaints, and work a gradual change in the character of a people: For such complaints are hereditary; or at least debilitate the constitution, and predispose to dyspepsy and bilious attacks. Energy of body and mind; the power of enduring hardships; and the fortitude that braves difficulties, disappear before these diseases: Hence it was that Rome, luxurious, enervated, dyspeptic Rome, sunk an easy prey before the brawny arm of the Goth and the Vandal. Compare Italy at that time, or Italy now, with what she was in the early days of Roman glory, and you see the genuine influence of these maladies, operating through centuries. There is scarcely any nation, indeed, of long duration, whose character does not exhibit more or less of this same influence. Even England, roused to effort, as she has been, by so many causes; and cultivated as she now is, in intellect, in arts, and refinement, presents, in the sterner features of her character, an alarming contrast between the eupeptic days of Elizabeth, and the dyspeptic times of William the Fourth. Nor can the observing eye fail to perceive in this country, the same debilitating causes powerfully at work, when it compares the habits, manners, and constitutions of our fathers with our own.

Effects on the Enterprise of the Community.

2. Nervous complaints will unfavourably affect the enterprise of society. The irresolution and heartlessness which they produce in individuals, cannot but extend to the community: Because those individuals compose the com-

munity. And we cannot expect that they will exhibit ardor and perseverance in public enterprizes, when even self interest, one of the most powerful of impulses, cannot spur them up to the work, in their own behalf. Accordingly we find, that the periods in the history of nations and particular societies, which exhibit the most noble and daring achievements, and the most useful public enterprizes, are commonly previous to the time of their greatest external prosperity. Splendid baths, and mausoleums, and monumental pillars, and arches, may, indeed, spring up at the command of imperial or lordly pride, in degenerate times. But when is it that commerce pushes her adventures into the farthest seas; that agriculture encroaches most successfully upon the forest; that the most useful canals, and roads, and other means of intercommunication are constructed? When are institutions of learning and benevolence most successfully and numerously founded? Before a nation or society has reached the acme of its prosperity, I reply: for when this point is passed, what shall we eat, and what shall we drink; where shall we find any new sensual pleasure? these are the all-absorbing inquiries; and the consequence is, imbecility and irresolution, both of body and mind.

On its Stability.

3. These maladies injuriously affect the stability of society. They are characterised by a sensibility either morbidly acute, or morbidly obtuse, strongly and irregularly excited. Hence those under their influence act more from feeling, (and that too often of an unhealthy character,) than from sober judgment. Consequently, they are liable to counter feelings, which ere long lead them to new and opposite conclusions. To-day, a nervous community, under the influence of strong irritation, may adopt measures which are exceedingly imprudent; and thus involve themselves in suffering. This brings on melancholy: which will make them feel that all is lost; and they will refuse to act at all when a little vigor in action would free them from impend-

ing evils. Again, jealousy, or strong prejudices, for, or against individuals, high in office, may draw forth, either immoderate praise, or scurrilous abuse. In short, a society leavened by dyspepsy, will exhibit so much of rashness and extravagance, that little calculation can be made upon their opinions, or their conduct. Every new gust of passion will swell the surface of the public mind into tumultuous waves; and every ebbing tide of feeling will drain away even its vital flood.

Effects on Literature.

4. These maladies exert no small influence upon the literature of society. They tend to make it superficial. Such is the usual effect of feeble health generally, upon individual scholarship: for such a person cannot sustain the protracted labours that are necessary to enable one to drink deep of the Castalian fount. The alternative with such a one, is, often, whether he shall just sip the waters, as he hastily passes, or leave them altogether untouched. Multiply such individuals in the community, and you create a kind of necessity for superficial literature. Writers must be superficial, because they cannot endure the physical efforts which profound investigation demands: and readers will prefer superficial works, because they are too dyspeptic to endure the labour of long and patient thought. We are not therefore, to impute the inundation of the literary world, in modern times, by light reading, so much to a defect in our systems of education, as to the creation of a host of superficial writers and readers by nervous maladies.

A morbid sensibility in literature created and demanded.

The same cause imparts to literature a morbid sensibility and creates a demand for it. If a scholar be of a melancholy temperament, a sombre hue will be imparted to his pages; if he be choleric, his spleen will discharge itself from his pen; if he be jealous, his imagination will delight in conjuring up dark plots and schemes of blood and suffer-

ing, that have no likeness in real life. And since these passions usually reign in the bilious man's bosom, it were folly to expect that his writings should be free from them. Nay, we should expect that the gall, and the hemlock, and the wormwood, and the vinegar, would be mixed together on his pages. Such a mixture would not, indeed, be very palatable to a healthy appetite. But nervous ailments produce a morbid appetite in the mind, as well as in the body; and hence, such disgusting mixtures are greedily devoured. In short, the dyspeptic writer is apt to find a dyspeptic community to relish his productions.

The prevalent literature of the day.

If the history of the prevalent literature of the day does not illustrate this view of the subject, then am I greatly mistaken. True, we have profound works upon science issuing at this day from the press; yet they are not the productions of dyspeptics, but of the few of strong intellects, that are not crushed by the power of the monster. The great mass of the common literature of the day, however,—our romances, and plays, and poems,—exhibit more or less of the morbid sensibility of weakened nerves. And if there were not a preternatural excitement pervading the community, resulting from excess of various kinds, they would not devour so greedily as they do, these unhealthy productions. But when we see with what a ravenous appetite, the concentrated mixtures of every vile and murderous passion, which a great and noble poet of modern times so often poured forth upon the community, were devoured and relished, can we doubt the wide spread and pernicious influence of nervous derangement, through luxury, excess, and indolence?

Religious character affected by these complaints.

5. These same causes exert an unhappy influence upon the religion of a community. I mean they give to it a peculiarity of character, that is unfavorable to devoted per-

sonal piety, and to the progress of the Redeemer's kingdom among men. The timidity, despondency, and hopelessness of the nervous man, are not limited to earthly objects, but take hold with a stronger power upon his eternal interests. Hence he lives, not like a freeman and a son, but like a slave beneath the throne. Fear, and not hope, seems to be the inspiring motive of his actions. And a similar timidity and want of resolute action and confidence of success, are seen in the religion of a community that is much affected by dyspeptic complaints. There is exhibited a hesitation, a wavering, a fickleness, in the religious aspect of such a society, that very much neutralizes the influence of its example.

The times demand piety of a different stamp.

Now I greatly mistake the aspect of these times, if they do not demand a very different character in the religious community. The elements of society are awakened into a feverish excitement on almost every subject; among others, opposition to religion exhibits such a character. Nor is it to be successfully met and encountered by the puny arm and shrinking sensibility of dyspepsy. It needs the resolution, the assured faith, and the energetic action of our Pilgrim Fathers. And then again, what but the strong arm, and the resolute courage, and unwavering faith, of men sustained by eupepsy, as well as the grace of God, can urge forward into the dark and untrodden fields of spiritual death, the mighty wheels of benevolence that are in motion? And as to the men who go forth as missionaries into these fields of danger and death, what can dyspeptics do there, with all their despondency, timidity, and irresolution?

Non tali auxilio, nec defensoribus istis

Tempus eget.

True, they can go to the field; but it will be only to fall prematurely, victims to the climate, or excess in diet, or cares and labors too mighty for their enfeebled frames. They were eupeptics who carried the gospel over the earth in primitive times. They were eupeptics, who in modern

times, have successfully engaged in the same work ; and they must be eupeptics, who are to bring on the millenium.

Extensive prevalence of nervous maladies.

Such are the the deadly influences of nervous maladies upon the corporeal, the intellectual, and the moral powers; and upon the character of society. I have only sketched some of the outlines of the picture. But the filling up would afford no alleviation to its gloomy lines. Nor is it a picture of the imagination. At this very day, these maladies are exerting a withering influence, not only upon individuals, but upon nations. We have the testimony of the ablest physicians as to their influence in Great Britain ; and though it is to be hoped that our own country, as a whole, is not yet equally under their power ; yet we are advancing, with the most rapid strides, to the same state ; and therefore, we have, in her condition, an example of what we shall shortly be, and are now almost become.*

Thirty years ago, as we have seen, Dr. Trotter declared that "two thirds of the diseases in society, [in England of course,] were nervous." More recently Dr. Johnson declares, that " what with ennui and dissipation in the higher ranks—anxiety of mind arising from business, in the middling classes—and poverty, bad air, bad drink, and bad occupations, among the lower classes, there is scarcely an individual in this land of liberty and prosperity—in this kingdom of ships, colonies, and commerce, who does not experience more or less of the ' English malady'—that is to say a preternaturally irritable state of the nervous system connected with, or dependent on, morbid sensibility of the stomach and bowels." To the older and more thickly settled parts of our country, this description would probably apply without alteration. Indeed, we may justly regard nervous maladies as already a formidable national evil.

* Dr. Avery thinks dyspepsy to be now more prevalent in this country than in England.—See Note D,

And the heaven is spreading wider and wider; and by its fermentation, is secretly heaving up the foundations of society. The ravages of these complaints will always go hand in hand with luxury, intemperance, and excess of every kind. Probably there is no class of the community, however, who are so closely beset by them, as literary men. The church of God deeply feels their inroads, in prostrating the energies, and prematurely destroying the usefulness, of multitudes of her most valuable and able ministers. They lurk too, around our Theological Seminaries, our Colleges, and preparatory schools; and seize as victims many of the most devoted and able youth, who had consecrated themselves to Christ and the Church. Indeed, scarcely any real scholar escapes altogether their withering touch.*

Excess the cause.

Can there be any doubt as to the causes that produce this mighty evil? It is intemperance in some of its hydra forms—excess in eating, or drinking, or study, or the indulgence of other consuming passions and appetites, or a neglect of exercise and the other requisitions of appropriate healthy regimen. And when we reflect on the almost universal prevalence of these excesses and abuses, we are led rather to wonder that nervous complaints are not more prevalent and obstinate, than that so many are their victims.

Temperance the remedy.

Nor can there be any more doubt, as to the means which can alone arrest their progress. It is the adoption of temperance in all its branches;—temperance in eating, temperance in drinking, temperance in regimen, and temperance

* “The disorder of the digestive function is the most frequent and prevailing of the ailments that afflict man in the civilized state; all classes and all ages suffer from its attacks. Few are so happy as to pass through a life of ordinary duration, without undergoing a protracted struggle with this malady, and experiencing its torments.”—*Encyclopedia Americana*, Art. *Dyspepsy*.

in employment. This is the sole and the sovereign antidote, which God has given for stopping this desolation. Men, therefore, have their choice, to suffer the evil to continue its inundating march, or to raise up this mound against it. There must be a great change in the present habits of society, even among those who are considered temperate, or dyspepsy will continue its ravages and multiply its victims.

Motives for preparing these Lectures.

Firmly convinced of the deadly influence and wide extent of this Protean malady; and that no other means, but decided, thorough, universal temperance, can ever retard its progress; and perceiving the deep slumber of the public mind on the subject, while the interests of learning, humanity, and religion, are trampled upon and crushed under the tread of this destroyer; I have been induced to come forward, and publicly lift up my voice, to warn the literary youth of his danger. I thank God that he has given me strength to finish my testimony. I am aware indeed, that carrying, as I do, the marks of dyspepsy in an emaciated frame and a debilitated aspect, the proverb will be in almost every mouth, ‘Physician, heal thyself.’ If the system of diet, regimen, and employment, which you urge so zealously, as the grand panacea, cannot restore your own system to a healthy state, how can you expect others to believe in its mighty efficacy?

Reply to the objection.

It is not pleasant, thus publicly to recur so often to one’s private trials and feelings, as I have done in these lectures. But in the present case, I am bound to answer a few words. Permit me then, to say, that in order to estimate correctly the difficulties against which I have to contend in this matter, it ought to be considered, first that it is not the work of a month merely, nor of a year, to restore to health and vigor, a constitution, which, like mine, has been for some

twenty years, sinking lower and lower under the power of dyspepsy—Secondly, although I had for years supposed myself attending to diet and regimen, yet it has been only a comparatively short period, in which I have even attempted to adopt the system which I have recommended in these lectures. I formerly selected certain articles of diet, which were of easy digestion, and adhered to their use; but defeated all the good effects by eating too much; and especially, by not making out my entire meal from a single dish: and into these errors I fell through ignorance of the true system of dieting. The same cause led me into similar errors in respect to regimen and employment. And, indeed, there is scarcely a rule in this whole system, which I have been enforcing, whose importance I have not learned by experiencing the bitter effects of its violation; and, therefore, I can say to any, who are only partially adopting it for their guide, that they will certainly fail of deriving from it any important benefits. In the third place, I must confess with shame, that even since I have known the proper course for me to follow, I have too often found an inordinate appetite, or indolence, conquering the firmest resolutions; and thus, in a great measure, counteracting the good effects of temperance and exercise. Finally, it ought to be recollected, that nervous complaints, long continued and aggravated, do, at length, become organic, and beyond the power, not only of diet and regimen, but of every means of cure. That such is my case, I neither assert nor deny. I would cheerfully leave the event with God. If he has more labour for me to perform in this world, he will give me strength. If not, all I would pray for, is a quiet and cheerful submission to his will, and a peaceful exit from this trying scene.

Personal Testimony.

But notwithstanding all these unfavourable circumstances, I can most conscientiously testify, that just so far as I have faithfully adopted the system, which I have been advocating, I have never failed of realizing from it, the most hap-

py effects, fully corresponding to my expectations. Indeed, after so many years of almost unalleviated suffering, I can hardly speak, without enthusiasm, of the influence of this system on the body, the mind, and the heart. To mention a single example: the preparation of these lectures, in the space of a few months, in addition to my usual professional duties, small as the labour may seem to a man of vigorous health, especially when so imperfectly performed; has nevertheless, so exceeded my powers for many years past, as to excite my surprise and gratitude: for it has been solely the result of attention to diet, exercise, and employment: and at a season of the year too, when my system has to struggle the hardest with the inclemencies and vicissitudes of our climate.

Miseries of Dyspepsy.

Finally; it may be that Providence has thus brought me before you, a living example of the nature and desolating influence of dyspepsy, that you might be roused to flee from the destroyer, before his cords shall be bound around you too firmly to be severed. If I can not tell you of health restored by diet and regimen, I can testify of the personal, bodily, and mental sufferings, that accompany this complaint. And should any of you struggle for two or three decades of years against it, you will then regard Cheyne's description of these sufferings, extravagant as it may now seem, as not overdrawn. "Of all the miseries that afflict human life," says he, "and relate principally to the body in this valley of tears, I think nervous disorders, in their extreme and last degrees, are the most deplorable, and beyond all comparison the worst. It was the observation of a learned and judicious physician, that he had seen persons labouring under the most exquisite pains of gout, stone, colic, cancer, and all other distresses that tear the human frame; yet he had observed them all willing to prolong their wretched being, and scarce any ready to lay down cheerfully the load of clay, but such as laboured under a constant

internal anxiety, meaning those sinking, suffocating, and strangling nervous disorders. It is truly the only misery, almost, to be dreaded and avoided in life. Though other evils be burthens, yet an erected spirit may bear them; but when the supports are fallen, and cover the man with their ruins, the desolation is perfect."

May a happier experience be yours !

May no one, who hears me, ever know from his own experience, the truth of this appalling description. May no one be compelled, after twenty or thirty years contest with dyspepsy, to look back, and see the lopped-off fragments of himself, strewed over the field of combat. O, such experience has all of death in it, but the last pang. Nay, it is death, protracted, repeated, multiplied, concentrated. But I rejoice in the belief, that none of the members of this Institution are acquainted with these bottomless gulfs of dyspepsy. I rejoice, that even though some of you may have felt the sting of some of his spent arrows, you all as yet occupy vantage ground comparatively high. O gird on, I beseech you, the panoply of temperance, and maintain your post. Long after I shall be sleeping in the grave, may the next generation see you vigorous, healthy, and happy, moving in extensive spheres of usefulness, and leaving at your departure, the light and warmth of a lovely example, to kindle up other fires in future times.

THE PHYSICAL CULTURE ADAPTED TO THE TIMES.

AN ADDRESS

DELIVERED BEFORE THE MECHANICAL ASSOCIATION

IN ANDOVER THEOLOGICAL SEMINARY,

SEPT. 21, 1830.

οἶκουν ὅτι μὲν σώματα καὶ ψυχὰς τὴν γε ὁρῶν παντὶ δει̃ τροφὴν
φραίνεσθαι δυναμένην ὥς καλλίστα καὶ ἀρίστα ἔξεργάζεσθαι, τούτο μὲν
ορθῶς λήγεται πού ;

Ought it not to be every where maintained, that a good education,
gives the mind and the body all the power, all the beauty, and all
the perfection, of which they are capable?—*Laws of Plato, Book vii.*



ADDRESS.

Proportion essential in the works and operations of nature.

Man suffers most from its violation.—His physical and Intellectual Powers disproportionately cultivated. Physical Culture neglected by literary men. Peculiar attention to it demanded: FIRST, from Pecuniary Motives: A system of Self Support for Students developed. 1. By well directed Exercise: 2. By a simple and a plain Diet: 3. By Temperance Boarding Houses: 4. By School Keeping. Peculiar attention to Physical Culture demanded, SECONDLY, by the Literary character of the times. And FINALLY, by the calls for high Professional usefulness—particularly among Ministers.

Proportion, a characteristic of Nature.

No feature is more uniformly present in the works, and operations of nature than proportion. Men generally may not be able to give a logical definition of this characteristic; nor do they in ordinary cases, observe its presence. But let it be wanting, as it sometimes is:—let a sickly or distorted plant, or animal, be exhibited before us; showing the effects of a disproportionate developement or action of its parts, and we instinctively perceive the absence of congruity; and hence learn, that its general, though unnoticed presence, is essential to the health and beauty of the natural world.

Man distinguished for a violation of its Laws.

Perhaps no part of the creation suffers so much from a

violation of the laws of proportion, as man. Less under the influence of instinct than the inferior animals, his physical and intellectual character, receives a deeper impression than theirs, from factitious circumstances and appetites. Hence will result an unequal cultivation and developement of his powers. In savage life, his situation demands little besides physical efforts; and therefore, he will cultivate almost exclusively, his bodily powers; his mind being suffered to lie coiled up and feeble in its material prison. Muscular energy and mental imbecility, therefore, will be the prominent characteristics of the savage.

Society in its different stages.

The progress of society from its incipient, to its most refined and luxurious state, exhibits a gradual, and finally a complete change, in this picture. As the intellect begins to receive attention, the bodily powers are less and less cultivated; until at length the happy medium is reached, when each is disciplined in due proportion. This is the golden age of society; when *sana mens in corpore sano*, is no longer a poetic dream. It is that period in the history of nations, when their character is most complete in its grand outlines: when great vigor of intellect is connected with great vigor of body: when there is competence and independence, with little excessive poverty on the one hand, or enormous wealth on the other: when industry and enterprise are yet uncrippled by sloth and effeminacy: when there is refinement of manners without fastidious nicety; and when the moral pulse of the community beats full and strong; not urged on to feverish violence by ignorance and credulity, nor feeble and intermittent, through the influence of luxury and scepticism.

The physical powers disproportionately cultivated.

But this happy condition of society rarely lasts long; and then begins to be exhibited the feebleness, and distortion, resulting from excessive cultivation of the mental

powers, while the physical are neglected. Ingenuity and wealth enable many to dispense in a great measure with active bodily efforts, and multiply the means for inordinate gratifications of every kind. Thus are engendered a multitude of factitious wants, that give at length an almost entirely artificial character to society. As a consequence, the firm and elastic muscle and the vigorous frame, are succeeded by debility, and the pale and lean aspect of dyspepsy. The eye of the mind, no longer bright and sparkling, looks out with a feeble glance, from its pale teneiment; and although the intellectual faculties are plied with a thousand stimuli, they send forth only imperfect and distorted productions; like the flowers of a garden exceedingly fertile, which, though of great size and gaudiness, have lost their delicate natural form and simple elegance, and their power of producing sound and valuable fruit. In short, amid an excess of refinement, and every facility for the cultivation of knowledge and virtue; frivolity, imbecility and corruption, characterise the times: And all because the laws of proportion have been violated, by neglecting a cultivation of the bodily powers, correspondent to that of the intellectual.

The present an intellectual age.

The present age is characterised by most assiduous efforts, thoroughly, and in the best manner, to discipline all the powers of the mind. From the time when our children enter the infant school, till they have finished their professional studies, they are met by the ablest masters and the wisest rules, to aid in the acquisition of knowledge, and in the expansion and discipline of the intellect. Indeed, the intelligent part of the community, have become decidedly enthusiastic on the subject of intellectual education. So that we see veterans in literature and science, abandoning the folios of classic lore, and the abstruse demonstrations of philosophy, to compose the infant's manual. I complain not of this wide spread excitement; but acknowledge with

gratitude, that it is accomplishing wonders for the improvement of the intellect. But I do complain of the vastly disproportionate attention that is given to physical education. Indeed, except in a few recent instances, who, among the numerous founders, patrons, guardians, and instructors of our public literary institutions, ever thought of making any regular provision for keeping in play the delicate machinery on which the immaterial principle so essentially depends for successful operation? The whole business of physical education has been left, and in nearly all our oldest and most respectable institutions is still left, almost without time, encouragement, or direction; except, perhaps the erection of a few articles of gymnastic apparatus. If the student happens to have learnt that attention to diet and exercise is desirable, and should possess the resolution to cultivate his muscular energies, though the laws of the institution, to which he belongs, have monopolized nearly all his time for mental discipline; and though a thousand temptations to excess in diet meet him at every table:—if his resolution be strong enough to conquer these almost unconquerable difficulties, he may sustain the intellectual labors of his course, without destroying his bodily constitution. But if untaught in the fundamental principles of physical education, he suffers the ambition of scholarship, or a natural inclination to gluttony and inaction, to control him; it will be wonderful if bodily health and vigor are not crushed by the load that is laid upon them; and the mind, ever after, do not partake in all its movements, of the feebleness and inefficiency of its material tenement. Instances of this character have been so alarmingly multiplied in latter years; bright hopes have been so often prostrated; vigorous and pious youth of sprightliness, genius, and promise, have so often been irrevocably changed, into complaining, imbecile, gloomy dyspeptics; that a solicitous enquiry has gone forth among the guardians of literature and religion, as to the cause and the remedy. And from almost every quarter, a response is sounded louder and louder in their

ears; *it is the neglect of early physical education.* From no quarter has this reply come more distinctly and forcibly, than from the Association which I have the happiness of addressing. Its existence proves a deep conviction among those best qualified to judge, and most deeply interested, that the cultivation of the bodily powers has been sadly overlooked and neglected in our literary institutions; and that it is high time to commence a reformation on this subject. And the decisive success that has thus early attended this effort:—its rescue of some already from impending ruin, and the general improvement of health which it has obviously produced in the Seminary,—must carry home to every impartial mind, a conviction of the necessity of waking up to the subject of physical education. The same appeal is sustained by the operation of several institutions in our land, that recognise, as a leading principle of their establishment, “the union of academic studies with systematic bodily labour.” One of the most efficient of these, the “Manual Labor Academy of Pennsylvania,” in its first annual report, thus testifies to the influence of this system upon the pupils. “The health of this interesting family has been uninterrupted, except in a few cases diseased when admitted. Every invalid remaining there has been restored to health.—Their blood (that of the students who have adopted this principle,) flows warm and rich and equable; and the east winds cannot penetrate them. Their thirst demands water, their hunger plain food, their limbs rejoice in muscular efforts, and their minds in truth. Sleep rests them, and their waking eyes behold the light of another cheerful and useful day.”*

The success of Pestalozzi and Fellenberg.

The man, indeed, who demands infallible success in these incipient efforts, undirected as they are by experience in

* First Annual Report of the Manual Labor Academy, of Pennsylvania.—1829.

our own country, and, therefore, liable to imperfection, will be disappointed: But he, who is content with results as propitious as can be expected under such circumstances, will be gratified and animated; and especially when he recollects that in Europe, Pestalozzi and Fellenberg have demonstrated the utility of this system by a longer course of experiment; he will feel that the root of an alarming evil has been found out, and might and must be eradicated.

The present times demand peculiar physical cultivation.

If I mistake not, no age of the world has demanded such an assiduous cultivation of the physical powers as the present. I maintain that *there are peculiar characteristics of the times in which we live, that demand peculiar attention to physical education.* This is the subject which I wish to bring distinctly before this audience on the present occasion.

In the first place, THE PECUNIARY DEMANDS OF BENEVOLENCE AT THE PRESENT DAY, CALL FOR THOROUGH AND SYSTEMATIC BODILY CULTURE.

In many parts of the world, but more particularly in this country, the services of educated men are needed, where only small and uncertain salaries can be expected, and where extra literary labors will meet with no pecuniary recompense. Knowledge must be extended to the lowest classes in society, and a scattered population supplied with physicians, lawyers, and ministers. Hence the men who engage in this service, must depend, in a greater or less degree, upon bodily efforts for securing a competent support. But if these efforts be not commenced in early life, they will never afterwards be successfully made. Now as no student knows where his lot will ultimately be cast, it is the part of wisdom early to habituate himself to these mechanical and agricultural pursuits, on which he may be compelled partially to depend for subsistence.

Objections by the ambitious scholar.

I know that the spirit of many a youthful and ambitious scholar, who has been brought up in affluence, revolts from the idea of thus eating his bread in the sweat of his brow, and of withdrawing a part of his attention from the cultivation of knowledge, for grosser pursuits. But he ought to know, that the revolution of a few annual suns will greatly change his views and feelings on this point; and a little mortifying experience may teach him at length, that even such a sphere of labor, as we are speaking of, may be large enough for his abilities, transcendent as they now seem to him. Many, indeed, placed by the hand of Providence against their wills, in such circumstances, have at length acknowledged the wisdom that appointed their lot; and found that no condition is more propitious to human happiness, than the union of literary with agricultural or mechanical pursuits.

The poor as well as the rich must be educated.

It is most important, in a country like ours—indeed, in what country is it not important—that our educated men should be those of the richest native talent. And these, to say the least, are as likely to be found in the poorer, as in the richer classes of society. Means, therefore, should be provided for the education of youth of this description, who are without property. And especially does the Christian Church need, for ministers and missionaries, all the indigent and pious young men of talent in the land. The call for their services has long been loud, and is now become imperative. Nor ought Christians to rest satisfied, until every such youth among us is searched out and put upon a course of liberal education. But shall all these be sustained, through their ten years of preparation, by the hand of charity? Yes: rather than that they should not be brought forward at all. But it has become an interesting inquiry, whether some system cannot be adopted, by which young men of energy and talent can procure, in whole or

in part, the means of defraying the expense of their education; and that without essentially delaying their progress. I maintain that such a system is not only practicable, but may be adopted without difficulty; just so soon as a majority of the community are convinced of its feasibility. And when we consider how difficult, if not impracticable, is the work of procuring, in the ordinary way, the large amount of funds requisite for the object, and how greatly these funds are needed in the other branches of benevolent enterprise, every philanthropist will surely listen candidly to any suggestions bearing upon so important a point.

Plan of self support.

The first part of this system of self support, which I shall mention, *requires that the student devote from three to six hours each day, to mechanical or agricultural pursuits.*

Even if he give six hours to exercise, this will leave him nine for sleep and meals, and nine for study; and probably he could make as great literary progress in this time, invigorated as he would be by bodily exercise for the work, as if he were to devote twelve or fifteen hours to study. Now the common laborer receives generally about eight cents an hour for his services; and at the same rate, the student would earn nearly three dollars each week; or if he labor only three hours each day, (and every scholar needs at least that amount of exercise to preserve his health,) the weekly amount would be about one dollar and a half; or if we take four hours and a half per day, as his period of physical effort, the weekly income would be more than two dollars. I know, indeed, that unprovided as most of our literary seminaries are, at present, with any facilities for profitable labor, the student could not earn even eight cents per hour, were he ever so diligent. But let there be connected with our academies, colleges, and professional seminaries, a farm of proper extent, and shops for mechanical labor sufficiently numerous, and it must be the student's own fault if he cannot earn the moderate sums

which I have mentioned. Nay, I doubt not, but under proper regulations, and with proper management on the part of the student, these sums might be nearly doubled; while at the same time his literary progress would be accelerated, rather than retarded, by such vigorous and systematic cultivation of his bodily powers. Add to all this, that if necessary, a half or whole day, weekly, might be employed in active labor; and in the same manner, might be spent a large portion of vacations.

Now with such a system of exercise, and so much time to spare for it, and such facilities for turning every muscular effort to the best account, who will consider that a Utopian calculation, which decides, that most indigent students might thus defray a large proportion of the necessary expenses of an education? Indeed, might I not find evidence on this very eminence, that such a system is practicable; and are not many, in other parts of the land, ready to testify from experience, that these results are neither visionary nor exaggerated? And if so, will it be thought strange, if I urge upon an enlightened, benevolent, and Christian community, the pressing duty of an immediate and extensive introduction of the elements of such a system into our seminaries of learning? I plead for it in the name of our Education Societies—in the name of the unenlightened and unconverted millions of other lands—and in the name of our new and destitute settlements.

But the whole plan is not yet developed. For in the second place, the student can greatly reduce his expenses, by *adopting a very simple, yet healthy system of diet.*

Water the best of all beverages.

The fundamental principles of this system are very plain and definite. One part of it consists in the student's discarding entirely, except by the physician's prescription, the use of all distilled and fermented liquors, such as spirit, wine, and cider; as also those bewitching narcotics, tea coffee, and tobacco. It is now too late—the blended rays

of philosophy and experience fall with too strong a light upon this subject—for an intelligent man to maintain, that any of these substances are necessary for health, strength, or happiness. Nay, both chemical and medical philosophy testify, that their sole effect upon the healthy, is insidiously and prematurely to exhaust the animal system, and expose it to the fiercer onsets of disease. And those who have fairly made the trial, and adhered most rigidly to nature's beverage alone, have found that this is not a vain philosophy. If any class in society are preeminently without an apology for the use of these substances, it is the young and healthy, who are devoted to literary pursuits. For any one of this character, to be so wedded, I will not say to spirit or wine, but even to his snuff box, or cigar, or cup of tea, or coffee, that he cannot cheerfully abandon them all, to secure the important object under consideration, shows that he has not the self-denying spirit demanded in a minister of Christ, or even in a Christian. Self denial! It can scarcely be called such, for a young and vigorous man to abandon these decidedly injurious habits, and to form others which are eminently conducive to health, longevity, progress in knowledge, and usefulness: I mean the practical adoption of the principle, that water alone is the best and only proper drink for man. Nor need any such individual fear coming at once and fully into the practice of using this beverage alone—giving up resolutely, entirely, and forever, (except as medicines,) his wine, tobacco, tea, and coffee. Indeed, if they be abandoned only by piecemeal—if the attempt be made to break away from these enchanters by slow degrees—the result will be, in four cases out of five, that the cords of attachment will be strengthened and coiled more closely around the captive. If the habits are salutary to health, they ought not to be abandoned at all; but if injurious, no young and healthy man, (and very rarely any other,) need fear their discontinuance at once; any more than he need fear to loosen a cord, which is drawn so closely around his throat as to obstruct his breathing. When

you hear a man professing himself able at any time to abandon a bad habit in eating or drinking, and yet doing it only by slow degrees, through fear of injuring himself, you may rest assured, in the first place, that this is a device of appetite to quell the voice of conscience and put down resolution ; and, in the second place, that that bad habit is fixed upon the man with so tenacious a grasp, that he will probably never get rid of it.

How shall we change our dietetic habits ?

I know, indeed, that great and sudden changes in dietetic habits, even if ultimately salutary, are sometimes attended with bad consequences ; and in persons of feeble constitutions, it may be, with dangerous effects. But even in the case of the invalid, is it not better at once to make the change, lest he should not make it at all ; and if he find it very prejudicial, let him relax a little in the rigor of his discipline, until he has reached the healthy standard ; since it is much easier to let out the reins of appetite, than to draw them tighter. And as to the young and healthy man, there is stamina enough in his constitution easily to resist all changes of this kind, that are recommended by philosophy and experience. Let him not hesitate, therefore, to free himself from every injurious habit by a single blow, and not attempt a mangled and protracted amputation at intervals.*

Another part of this system of dietetics, consists in *eating of a single dish only at a meal, and of that dish in moderation.*

By a single dish, I understand some one principal and substantial article, as meat or bread, with such other articles as any one chooses to add for dilution or seasoning. Indeed, any mixture of different articles, that is made before eating, may be considered as a single dish ; though it ought always to be understood, that the fewer the articles thus brought together, if they are of a proper kind, the

* See Note M.

more favorable for health ; since it is a principle in medical philosophy, well established, that “ the more simply life is supported, the better.” But considering every mixture made before eating as a single dish, I maintain that when a man has partaken slowly and moderately of this, he has eaten enough for promoting health and giving the greatest strength to the body and the mind. This position is established as a first principle in dietetics. Hence then, whatever is eaten after this first dish, under the name of pastry, cakes, puddings, or sweetmeats ; or as a second or third course, of different sorts of meat or fish ; or the same sort, differently cooked, must be injurious. All such articles thus brought forward after the removal of the first or principal dish, are to be regarded as additional dishes ; and I maintain that the student, and indeed, every temperate man, ought to abstain from them. For if the first dish be sufficient for health, strength, and happiness ; and the general effect of the additional dishes be injurious :—and I appeal to the records of philosophy, and temperance, to prove that such is the case ;—why, except to gratify a diseased and pampered appetite, should the literary man, or any other man, indulge himself in more than one ? Nay, farther ; if he would reap all the benefits of temperance, he must partake of that one dish only in moderate quantity. In but few cases will it answer to take the appetite, even for that single dish, as a guide ; for appetite in almost every man, has become so perverted—is indeed, so factitious,—that it cannot be trusted. But a man may judge of the quantity of food which his constitution requires, by a careful observation of the effects of different quantities upon his feelings and health. I do not maintain, that every man demands precisely the same amount of food, so that the balances can at once determine the point. But I do maintain, in the language of a distinguished living physician, that “ any discomfort of body, any irritability or despondency of mind, succeeding food and drink, at the distance of an hour, a day, or even two or three days, may be regarded, (other evi-

dent causes being absent,) as a presumptive proof, that the quantity has been too much, or the quality injurious.”—(*Johnson*.)—A careful attention to this rule will enable any man, to ascertain the amount of food which his constitution demands; and when this is determined, to that quantity he should most religiously adhere.

Such is the dietetic standard to which every resolute and really pious student might easily bring himself. “Water—water alone, unmixed, unspoiled,” should be his drink; and a single dish, and that in moderation, should limit his appetite at each meal. And can there be a doubt that such a system, extensively adopted at our literary institutions, would greatly reduce the expenses of living? So obvious is this conclusion, that I need spend no time in proving it.

This system of diet not a novel one.

But I am aware that many will exclaim against this system as unmercifully and injuriously strict—as in fact, slow, aggravated starvation. And so contrary is it to the almost universal practice of these luxurious times, that I doubt not many will look upon it as novel; never yet tested fairly by experience; and therefore, merely hypothetical. But I beg every literary man, before he adopts such an opinion, to review the history of the ancient philosophers, particularly of the Pythagoreans, and to read again the biographies of the men of every age, who have been most distinguished for literature, science, and usefulness. And he will be astonished to find, that nearly all these incorporated the elements of this system into their practice. Nay, he will find, that many a philosopher, many a physician, many a civilian, has left on record, a most decided testimony in favor of its efficacy and value.* But their enthusiastic

* Sinclair in his “Code of Health,” Vol. II. p. 301, has given a Catalogue of all the works that have appeared on Hygiene, Longevity, and Old Age, and they amount to no less than 1878 !! viz.

In the English language, 312.

In the other languages, 1566.

approbation of such principles, has been, as it were, a voice crying in the wilderness ; unheard amid the clamors of appetite, and falling on the ear of the invalid alone, who listens to it, only as the last alternative that can rescue him from the grave.

This system more promotive of happiness than any other.

As to the degree of pleasure resulting from the adoption of the system now recommended, compared with that to be derived from the common practice of eating of a variety of dishes, and as much as appetite demands, no man, who has tried both systems, can hesitate to ascribe to the first the most decided preeminence. This assertion will sound highly paradoxical to those, who have become sincerely attached to high seasoned food, in great variety, and stimulating drinks. But the pleasure derived from eating and drinking, depends upon the relish one has for the repast, upon the time devoted to it, and upon the effects on the feelings and the intellectual operations. Now the moderate eater, partakes of his repast with a natural appetite, which receives the simplest food and drink with a keener relish than a factitious appetite can give, for viands the most deliciously prepared : nor does the temperate man crowd down his food with the rapidity that is so common with the gourmand ; and therefore, though he eats less, he enjoys it longer. And as to the effects upon the mind and the heart, those of rigid temperance cannot be described but with enthusiasm, by any one who has ever experienced them. To represent a spare diet—even as rigid as I have recommended—as inimical to happiness, is, therefore, in the face of all experience and philosophy. It is on the other hand, the only way to secure freedom from violent bodily disorders, as well as to obtain equanimity of mind, clearness and vigor of thought, and a control over the passions.

A prophecy concerning this subject.

Novel and impracticable as this dietetic system may seem

to any at present, I cannot but predict that the day is at hand, when the great mass of the Christian world will adopt it in its fullest extent. And the rapid progress which one branch of temperance has made within a few years, is the principal ground of this prediction. It will ere-long be seen and felt, that the same principles which proscribe alcohol, do almost equally condemn other stimulants and narcotics, as articles of common use; and that a rigid adherence to the use of one dish only at a meal, is almost as effectual a security against intemperance in eating, as total abstinence from distilled spirit is against drunkenness. Christians will soon see, if they can be made fairly to look at the subject, that until they adopt this safe and definite rule, they live intemperately; and that without this rule, they are, as to principle, just in the condition of those, who make what they call a moderate use of ardent spirit. They will see too, that the money which they now devote to unnecessary articles of food and drink, is wanted, and by their Redeemer is required, to bring on the Millenium; and when they see and feel all this, they will not hesitate to adopt the system under consideration.

I am led by the course of remarks to mention, as a third item in the system of self support, which I am advocating, *that provision should be made at our literary institutions, for boarding houses, established on the principles of temperance.*

Who can expect that the student will be able to resist the temptations to excess, that meet him, in giant strength, at such boarding houses as are commonly provided; where he will have before him tea, coffee, and a variety of dishes, richly and deliciously cooked and seasoned, and where, to refuse a liberal allowance of all sorts, would subject him to the charge of squeamish nicety? Surely, it is too much to calculate upon, from poor human nature. But were a temperance table to be spread before him, from which the injurious articles were excluded, the victory would be easy. And where would be the difficulty of establishing and sustaining such boarding houses, provided students should

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unitedly prefer and patronize them? Or how easy would it be for those determined to adopt a particular system of diet, to associate; and having marked out their plan of living, to provide the means of carrying it into execution? Nor can there be any doubt—indeed, I might refer to trials of this sort that have been already made in some institutions, to prove, that such a system would very materially lessen the expenses of living* For take away tea, coffee, and a multiplicity of dishes, and you would diminish the pecuniary expenses, I had almost said, in direct proportion to the number of sorts which you remove. We may safely calculate, that such a plan would reduce the price of board one third. And when it was once seen by a conscientious community, that students could not only sustain life by such a system of diet, but like Daniel and his companions, when living on pulse, in the Babylonish court, were actually more vigorous in body and mind than others; they too would demand temperance boarding houses, and spread temperance tables, and thus be able greatly to swell the amount of their contributions to the cause of benevolence. Oh, who can calculate the mighty impulse that might thus be given to the progress of knowledge and piety! But I forbear to indulge in such pleasing anticipations.

Finally; if in the three methods that have been pointed out, the student should not find sufficient pecuniary resources for self support, *let him occasionally interrupt his literary course by the instruction of youth.* An interruption of this kind is apt to be unfriendly to the literary progress, though the business of instruction is not without its advantages in other respects. But in general, it would be better, so far as pecuniary remuneration is regarded, as well as the mental and moral discipline, either to delay the work of instruction till the collegiate course at least be completed, or to devote a longer portion of time to it in the early stages of education. Still, if a deficiency of resources demands it, no

* See Note, I.

one ought to hesitate to resort to the employment at any time, to secure the important object under consideration.

Practical adoption of this Plan of self support.

The plan which I have thus hastily developed, has been tested by experience I believe, in nearly all its parts, though not in its entirety, in any literary institution; unless it be recently in this place. Yet can it be doubted, that its judicious and complete adoption, would enable every healthy and energetic student to earn, and to save, nearly enough to sustain him in his course of education? If so, how immensely important to the cause of learning and religion in our land, would be a practical, experimental demonstration, of its feasibility? Indeed, that instructor, or that institution, which shall do this, will have given to our Education Societies, and, in fact, to every other benevolent enterprise of the day, an impulse that would be felt to the extremities of the globe. It is gratifying to learn that this experiment is in progress upon this interesting eminence.*

I hasten to say, IN THE SECOND PLACE, THAT THE LITERARY CHARACTER OF THE TIMES, DEMANDS A VIGOROUS AND PECULIAR CULTIVATION OF THE PHYSICAL POWERS.

Efforts for simplifying and diffusing knowledge.

I use the term *literary* in its broadest signification, as applying to knowledge in general. And it will be admitted at once, that the present age is distinguished—particularly in every free country—for efforts to simplify knowledge, and diffuse it through the community. These efforts have been most happily successful; and the great mass of society are rapidly rising on the scale of intelligence. The necessary consequence of thus elevating the general character, is, to raise proportionably, the literary standard of educated men. No one can now wrap up a scanty stock of knowledge in algebraic formulæ and pedantic terms, and thus hope to pass for a learned man. If he would acquire the

* See Note K, K,

name of an able scholar, he must be really such. Nor will the public be satisfied with limited and partial attainments. Each individual, among the various occupations of civilized life, expects that every scholar will be acquainted with all that is scientific, or literary, in the particular pursuit to which he has devoted himself. And the easiest mode of meeting this expectation, is to acquire so much knowledge of the principles of each art and profession, as to be able to converse respecting it, intelligibly and profitably. Especially is this necessary for the clergyman; whose knowledge of his own profession will be estimated, in a great measure, by the mass of mankind, from his acquaintance with, or ignorance of their own.

Painful but common Example.

Now this high standard of literary attainments cannot be reached by the scholar, without a vigorous cultivation of his physical powers. If these be neglected, or disciplined in a disproportionate manner, his constitution will almost infallibly sink under the effort. Especially is this true of the individual, who, in early life, was accustomed to active and laborious pursuits. Alas, memory presents us with many painful illustrations of the truth of this remark. We have seen the youth of talents and piety, forsaking the farm or the shop rather late, and conscientiously entering upon a literary career, in the hope of being useful. Possessing, as he supposed, an iron constitution, and feeling the necessity of pressing forward with all his might in his literary course, he sat down to his books with unremitting application; exercising his brain incessantly, but neglecting in a great measure, those 400 muscles, which, till that period, had been kept almost constantly in motion; and still continuing to load his digestive organs with the same amount and variety of food, as when engaged in daily labor. Nature bore this outrageous violation of her laws for a long time, almost without a murmur: but at length she began to send forth her cries, and to lift up her signals of distress:—

He, however, ignorant of their meaning, heeded them not, until driven from his books by the strong arm of dyspepsy, or incipient disorder in the lungs. Afterwards, nothing remained to him, but to nurse for a few years, a broken constitution, and to lament over the mysterious providence which thus early blasted his hopes. But had he been acquainted with the laws of the human constitution, he would have seen that the providence had in it nothing of mystery ; but was the natural and inevitable result of his cultivating his mind and heart, to the neglect of his body.*

The principle that firm bodily powers are essential to the highest degree of success in learning, is too little known and appreciated. Nay, we sometimes meet with the opinion, that a feeble constitution, which can not bear mechanical or agricultural labours, may yet endure hard study. But it ought to be known, that literary efforts are, of all others, most trying to the invalid ; and that the most vigorous minds—with perhaps here and there an exception—have been united to vigorous bodies. In other words, those who have risen the highest in intellectual efforts, have been the men, who have inherited from nature, vigorous constitutions, or have given the strictest attention to impart strength to one naturally feeble, or debilitated by early neglect.

Longevity of ancient philosophers and literati.

If we look into the history of literature, we shall find support for this position in the biographies of individuals most distinguished for their attainments. What can be a better proof of a firm constitution, or at least, of one free from the seeds of disease, than longevity ? Indeed, though men of slender habits and rather feeble muscular power, have attained to a good old age by rigid temperance, yet it is essential to long life, that all the vital powers should be free from disease and vigorous. Now the most eminent

* See Note H. II.

scholars of all times, have generally been long lived. The ancient philosophers and christian writers were remarkable for their strict attention to diet and exercise, and for their longevity too, when not removed by the hand of violence. The average length of the lives of 38 of these, embracing philosophers, orators, physicians, historians, poets, and divines, was no less than 81 years. Among these, were Plato, Socrates, Pythagoras, the two Plinys, Varro, Aristotle, Hippocrates, Galen, Demosthenes, Cicero, Isocrates, Euripides, Sophocles, Virgil, Horace, Xenophon, Thucydides, Josephus, Chrysostom, Justin Martyr, Origen, Hilary and Augustin; several of whose days were shortened by violent deaths.

Average length of life among learned moderns.

The longevity of learned moderns has been scarcely less remarkable. Twenty Italian mathematicians of different epochs, attained to the age of 81: and 23 of the most able scholars of that country lived 76 years. In France, the average term of life in 152 men of letters, taken at random, was 69 years; and 56 of the most eminent French scholars lived 77 years. Fifteen German scholars, proverbial for close study, lived upon an average 75 years. Among them were Leibnitz, Kant, Wolf, Michaelis, (David,) Adelung, Werner, Heyne, Wieland, Haller, Jacobi, and Klopstock. Twenty five of the most eminent English and Scotch writers, held out upon an average, 73 years. Among these, we find the names of Newton, Locke, Roger Bacon, Lord Bacon, Halley, Samuel Johnson, Young, Warburton, Adam Smith, Blair, Reid, Black, Robertson, Campbell, Playfair, and Stewart. In our own country, 23 most distinguished scholars, have reached the medium age of 76 years: Among whom, were the Mathers, the Chaunceys, Dr. Stiles, Johnson, Hopkins, Bellamy, Witherspoon, West, Dwight, Ewing, Franklin, President Edwards, Jefferson, and Samuel and John Adams.

Medium longevity of scholars in all ages.

According to these statements, the medium length of the lives of 186, of the men most distinguished in ancient and modern times for intellectual achievements, is 78 years. A longevity so remarkable, can be imputed only to great natural vigor of constitution, or to scrupulous attention to physical culture. For although intellectual pursuits, moderately and prudently followed, are undoubtedly favourable to health, yet the intense and protracted efforts, which most of these men must have made, to accomplish their Herculean labors; and that too, in most cases, under the pressure of poverty, or in peril of life, or in the midst of vexatious public cares, must have worn upon the animal system, and if not originally vigorous, or sustained by severe discipline, must have broken it down.

Exceptions.

I know that some examples may be quoted, in which men of apparently the feeblest constitutions, and struggling with disease through their short lives have, left imperishable monuments of their learning. But if I mistake not, it will be found, that in nearly every case of this kind, a naturally vigorous constitution was ruined by early collision with difficulties and exposures too great for flesh and blood to sustain; or by a most wanton disregard of physical education. If, for example, Dr. Alexander Murray died at the early age of 38, it was not because nature denied him a strong constitution; for when we learn how severe were his struggles with almost every kind of obstruction, and how perfectly regardless he was of every thing relative to his body, we shall even wonder that he did not sink sooner. A similar remark will apply to Pascal, who died at the age of 39. If Sir William Jones did not see half a century, yet the disorder that terminated his days had its origin in an unhealthy climate, rather than in any natural defect or feebleness of constitution. Certainly, in a vast majority of instances, the men whom posterity will honor most for intellectual efforts,

outlived the allotted period of threescore years and ten : and hence, as a general conclusion, which a few excepted cases cannot nullify, their bodily constitutions must have been naturally vigorous, or have been cultivated until they became so.

A feeble constitution sometimes favourable to literary distinction.

It will be admitted, however, that the excited and morbid sensibility which often accompanies chronic disorders, is peculiarly favourable to some, though the least valuable species, of intellectual labor. I refer to the composition of novels and poems ; particularly the latter. Men are fond of strong excitement ; and in order to produce it in the reader, the writer must be under the influence of deep feeling : *Ardeat, qui vult incendere.* (Cicero.) But it is the effect of health and temperance, to produce a state of mind too equable and unimpassioned for poetry and romance. Disease, or excess, destroys this happy equilibrium, and awakens that deep and irrepressible emotion, which is vented forth on the pages of the novel or the poem. This is the chief ingredient in the poet's inspiration ; and never is he more wretched, than when he is rearing the monument of his own immortal renown. Poetry of a didactic or philosophical character, may indeed, be written in the midst of health, prosperity, and happiness : But that which breathes a deep toned feeling, most commonly arises from the funeral pile of the body ; where heart and flesh are consuming, either in the fire of ungovernable passions, or of internal disease. So that in fact, when fancy and feeling feast upon the poet's labors, it is his very life, served up in the repast, that gives it its richness and relish.

Examples.

In illustration of these sentiments, the thoughts cannot but recur with melancholy interest, to Goldsmith, pining away in his garret ; to Cowper, haunted and consumed by

what he calls "spiritual hounds"; to Young, made the prey of disappointed ambition; to Chatterton, galled and fretted, and finally rendered desperate, by the triple chain of poverty, pride, and infidelity; to Petrarch, bleeding and fainting under the secret wounds inflicted by the eye of beauty; to Henry Kirk White, immolating himself upon the altar of literary ambition; and to Burns, crying out, as he withers away in the furious flames of intemperance:

"Oppressed with grief, oppressed with care,
A burden more than I can bear;
I sit me down and sigh!
O life! thou art a weary load,
A long, a rough, a dreary road,
To wretches such as I!"

Nor can we in this connection forget Byron; whose brain was maddened, rather than inspired, by the concentrated poison of every unholy passion; and who, in writing *Don Juan*, his master piece of poetic blasphemy and impurity, roused that poison into ebullition, as a late writer declares, by the influence of gin and tobacco!

"O, his were not the tears of feeling fine,
Of grief or love; at fancy's flash they flowed,
Like burning drops from some proud lonely pine
By lightning fired; his heart with passion glowed,
Till it consumed his life; and yet he showed
A chilling coldness both to friend and foe,
As Etna, with its centre an abode
Of wasting fire, chills with the icy snow
Of all its desert brow, the living world below."

We think also of Montgomery, a spirit of a different stamp; and we hear him exclaiming, as he looks up with the eye of faith from the depths of despondency:

"Though long of winds and waves the sport,
Condemn'd in wretchedness to roam,
Live! thou shalt find a sheltering port,
A quiet home."

Pollok too recurs to the memory, pouring his vital energies with careless profusion into the "Course of Time," and dying

"As sets the morning star,
Which goes not down behind the darken'd west,
Nor hides obscured among the tempests of the sky,
But melts away into the light of heaven."

Here also we cannot but remember our own author of the "Age of Benevolence," destined to have been the Cowper of New England, had not disease early marked him for its prey; yet probably that sensibility, which imparts the richest charm to his productions, was the result of the slow fire that was feeding upon his life. Indeed, in this excess of sensibility, the result of frail animal organization, or of deep seated, wounded passion, we have the foundation of the adage, *Poeta nascitur, non fit*; and here too we learn the reason why poets have not generally lived so long as other classes of literary men. Poetical distinction, therefore, will never be coveted by any scholar, who knows at what expence of happiness and life it must be purchased.

Invalids should not be discouraged.

Let not the important connection between bodily vigor and mental acumen, induce the invalid scholar to conclude that the road to eminence is entirely closed against him. For many of this description have performed wonders, and risen so high, in spite of every obstacle, that the world has only lamented that such mental powers were lodged in so frail a tenement—that the sword was too keen for its scabbard. But after all, it is idle for such minds to hope, that they can ever in this world, climb to the pinnacle of intellectual greatness. Let them be thankful, if God permits them to labor in a subordinate sphere, and look to another state of being for the full developement of their powers.

Correspondence between the physical and intellectual character of Nations.

If we compare the physical and intellectual character of nations, we shall arrive at the same conclusion, in respect to the dependence of the latter upon the former, as has been deduced from the biographies of individuals. It is in that golden age of a nation's history, already described, when the bodily and mental powers are cultivated in due proportion, that genius has reared her noblest monuments. But when dietetic excesses, slothful habits, and excess of refinement, have given rise to a thousand factitious wants, a deterioration of the bodily powers succeeds among the mass of the community. This effeminacy and corporeal imbecility, react on the mind, weakening its powers and cramping its efforts. Hence it is, that in the luxurious and corrupt periods of a nation's history, we find so few instances of intellectual vigor; the excepted cases, showing merely, that the individuals have escaped the general morbid influence. If we wish for examples, illustrative of these positions, we have only to recollect what Greece was before the time of Alexander, and what she has been ever since: Or to compare modern Egypt, with Egypt when she was the cradle of the sciences: Or Italy, in our days, with Italy in the Augustan age. Other causes have, indeed, conspired to produce such changes; but it seems impossible to doubt that physical deterioration has been a fruitful source of moral, political, and intellectual degradation.

I proceed, in the third place, to remark, THAT TO BE EMINENTLY USEFUL IN PROFESSIONAL LIFE, AT THE PRESENT DAY, REQUIRES A PECULIARLY VIGOROUS CULTIVATION OF THE PHYSICAL POWERS.

The observations I have to make under this division of the subject, are so much more applicable to the ministerial than any other profession, that I shall confine them to this alone.

Little superstitious reverence, for the clerical office at this day.

Did the mass of society look upon the man who wears the clerical habit, as in a great degree they once did, and still do in some parts of the world—did they look upon him as a kind of ethereal being, having little to do with human wants and passions, and necessarily profound in his acquirements, it might not be important for him to be acquainted with the common business of life. But the diffusion of knowledge at the present day, has, in a great measure, divested the office of that mysterious sacredness which once surrounded it; and men have learned that real piety and learning, not the profession, give genuine dignity to the man; and that human wants and passions do not forsake the body, when the clerical character is assumed. They expect, therefore, that the clergyman will be somewhat acquainted with those pursuits that minister to the animal wants. And if they find him thoroughly ignorant of these pursuits, they impute it to a defect in his early education, rather than to a spiritualization of his nature, so entire, as to render him indifferent to all worldly concerns.

Ministers must mingle familiarly with their parishioners.

One important effect of modern changes in the literary character, and of improvements in the mode of instruction, is the bringing of every faithful minister of the gospel into closer contact, and more familiar intercourse, with his people. It will neither satisfy his conscience, nor the public, nor his heavenly Master, if he spends his time in cloistered retirement, appearing only on public occasions, and then under circumstances that produce a wide separation between him and his people. He must go among them, and mingle in familiar discourse with men of every grade and occupation. Nor will he best promote the cause of truth, by limiting his conversation at all times, to subjects strictly religious. But he will better conciliate the favor of his people, conquer their prejudices, and prepare them to receive kindly religious instruction, if he can occasionally and sen-

sibly converse upon secular subjects; especially concerning the every-day employments of those he visits. If ignorant of these, some will conclude him as likely to be ignorant of the true gospel. And when he urges in his public ministrations, the danger of worldly attachments, the vanity of human pursuits, and the necessity of a supreme attention to spiritual concerns, many a hearer will say, "if our minister were himself acquainted with common worldly concerns, he would know that they demand a greater share of time and attention than he will now admit; nor would he look upon them as so utterly vain and sinful. He would be convinced, that we cannot give so large a portion of our time, as he now claims, for public religious meetings, reading the scriptures, and private devotions." But if a people know their minister to be thoroughly conversant with these secular affairs, they cannot thus evade the force of his exhortations.

Ignorance of common affairs obstructs a clergyman's usefulness.

Nor is this all. Such knowledge produces more respect for his character among his people: and from his familiarity with subjects out of his particular sphere of action, they will infer his better acquaintance with those to which he dedicates his principal attention. Whereas, his ignorance of common worldly pursuits, exposes him to the shafts of ridicule from not a few in the community, who think it lawful to amuse themselves and others, by retailing the history of his odd management in secular affairs. And exaggerated as such stories usually are, it can hardly be denied, that the awkward manner in which some professional men manage their secular concerns, furnishes some foundation for their fabrication. In country parishes, every step the minister takes in these affairs, is scrutinized with even more vigilance than his religious performances. And when great ignorance in this respect is discovered, there are always enough to take advantage of it at the ex-

pense of the minister's purse. Hence he soon finds his salary insufficient for his support. But when he communicates the fact to his people, they are ready to impute his embarrassments to want of economy. And indeed, mismanagement of pecuniary and domestic concerns, is very apt to put on the appearance of needless and criminal extravagance ; although its foundation be simply ignorance. But whatever be its origin, it almosts infallibly weakens the confidence of a people in their minister, and by consequence, alienates his feelings from them ; so that a dangerous wall of separation grows up between them. Whereas, if a people find their minister managing his domestic and pecuniary affairs with economy, prudence, and sagacity, it tends to strengthen their attachment to him, and to open a wider and more effectual door of usefulness. Now it is alone by an early attention to physical education, and that too, not merely in the gymnasium, but in the mechanic's shop, the garden, and on the farm, that the kind of knowledge and discipline can be gained, which are indispensable to prevent the difficulties I have described. A people may for a time be delighted with the brilliant talents and ardent piety of their youthful minister. But when he comes to be necessarily somewhat involved in secular affairs, if they find him incapable of judicious management ; in other words, if they find that with all his fine sense, and exalted sense, he is wanting in common sense, one half of the charm with which they listened to him in public is broken, and his power over them proportionably diminished.

More vigorous bodily health needed by ministers.

But in the next place, the more vigorous bodily health and increased ability for labour, which would result from physical education, is a still stronger argument for untiring attention to it.

The Christian church at the present day is losing a great amount of power, by the feeble health of her ministers. To meet a clergyman, indeed, especially of the younger class,

is come to be almost synonymous with meeting an invalid. And the very distinct and particular statement of their complaints, which most are ready to make at the first introduction, is proof enough that dyspepsy is the difficulty. For it is strikingly characteristic of this complaint, that it disposes a man to spread his ailments and troubles before every one he meets; and he would feel as if great injustice were done him, were he to pass an hour in any one's society without such disclosure. Now the sentiment of Homer, that "the day which makes a man a slave, takes away half his worth,"* applies in all its force to the minister of Christ, who has become the slave of dyspepsy. If able still to retain his place, his duties are but imperfectly performed. The grasshopper becomes a burden; and in musing so much upon his own troubles, he almost forgets those of his people. In his literary efforts, he is superficial; in resisting the progress of sin, he is timid; in special efforts, he is deficient; in parochial duties, extremely remiss; in his temper, he is apt to be unreasonably jealous, desponding, and capricious. In short, while sin and error are strong and flourishing around him, he is disheartened and inefficient; and all because he has as much as he can do to manage a broken constitution. Alas, multitudes by neglecting in early life to alternate labor with study, and to form habits of abstemiousness in living, prepare their systems for yielding to the slightest shock; and when once plunged into the mire, they are most commonly wading through it all their days.

Physical culture, not stimulants, should be the clergyman's dependence.

Since neglected physical culture is the cause of this wide spread prostration of ministerial energy, the remedy must be sought in early, systematic, and persevering attention to such culture. He can accomplish nothing of importance, in literature or religion, who is in the habit of indulging,

* *Πῆμισυ γὰρ τ' ἀρετὴς ἀποαίρνυται δουλίον ἡμᾶρ,*

ad libitum, the unnatural, craving appetite of a dyspeptic ; nor he, whose system is braced by stuffing and stimulating, rather than by exercise : who depends upon his glass of Champagne, or cup of young hyson, to prepare him for intellectual labor.* But let him be strict and simple in his diet, vigorous and thorough in his exercise, and seasonable in his hours of study, and he will find that he can accomplish wonders. We of this generation, dyspeptic and debilitated, read the biographies of some of our progenitors with astonishment, as we compare our labors with theirs. Yet the great secret of their Herculean vigor lay in physical discipline. Newton's celebrated treatise on optics would not probably have exhibited as much accumen, had he not, while composing it, limited himself to a spare vegetable diet. The diary of President Edwards testifies repeatedly to the additional mental power which he derived from a parsimonious diet ; and the half pint silver bowl, that measured his supper of bread and chocolate, still remains, a striking evidence of his temperance.† As we follow the philanthropist Howard through the prisons and lazarettos of Europe, we naturally think of a man, who never knew experimentally, what was disease or debility. Yet he himself declares, "a more puny whipster than myself in the days of my youth, was never seen. I was, politely speaking, enfeebled enough to have delicate nerves, and was occasionally troubled with a very genteel hectic." But a determined thorough change

* "Stimuli sometimes produce a kind of artificial genius, as well as vivacity.—Genius in this manner forcibly raised, may be compared to those fire works, which after having made a brilliant figure in the sky for a very short time, fall to the ground, and exhibit a miserable fragment as the only relic of their preceding splendor.—Gay, if I mistake not, in one of his letters observes ; ' he must be a bold man who ventures to write without the help of wine.' But in general, it may be remarked, that the cordials which an author may on this account be induced to take, are more likely to make himself, than his readers, satisfied with his productions."—*Reid's Essays on Hypochondriacal and other Nervous Affections*, pp. 69 & 70.

† In the possession of Samuel Farrar, Esq. of Andover.

in his diet, remodelled his constitution, and gave it power to endure fatigue and privation, and to resist contagion, almost without a parallel.

Case of John Wesley.

What clergyman of the present day does not contemplate with amazement, the amount of labors performed by John Wesley; prolonged even to the verge of fourscore years and ten! Yet in his history, while a boy at school, we have the secret of his iron strength. "During a great part of the time that Wesley remained there," says his biographer, "a small daily portion of bread was his only food. Those theoretical physicians who recommend spare diet for the human animal, might appeal with triumph to the length of days which he attained, and the elastic constitution which he enjoyed. He himself imputed this blessing, in a great measure, to the strict obedience with which he performed an injunction of his father, that he should run round the Charter-house garden, three times every morning."*

Broken down ministers.

But I must not multiply examples of this kind. Suffice it to say, that were as strict a corporeal discipline to be adopted by the ministers of the Gospel in our land: especially were this to be begun early; instead of hearing in so many parishes, the painful story of the pastor's wretched health, we should oftener hear his people expressing their astonishment that he was able to accomplish so much. Instead of being obliged to quit our stations, as not a few of us have been, almost as soon as we were established in them, and to resort to other pursuits, to save a ruined constitution a few years from the grave; we might flourish with vigorous health, in a green old age, among an affectionate people, whose piety would be our praise in this world, and whose

* Southey's Life of Wesley, vol. 1. p. 54.

souls, finally saved, would be our eternal crown. And were the appropriate physical culture, for which I plead, to become universal among ministers, who can doubt, that great as their labours now are, they might even be almost doubled, with no greater trial of the constitution than is at present experienced! True, so extensive is the debility of literary men, so weakened is the general physical stamina of the community, through the influence of excess in diet, and neglect of exercise, that we could not expect this reformation to be very rapid, even if commenced with vigor. But if nothing else can give to the sons of the church their lost power, the sooner the work is commenced the better.

Physical culture lengthens life and usefulness.

Again; this physical discipline would be of immense advantage to the church, by lengthening very much the term of ministerial life and usefulness. Able medical authority declares, that "the due degree of temperance would add one third to the duration of human life." We may smile incredulous at such calculations; but whoever has faithfully adopted the rules of temperance and exercise, will be satisfied, that this is no exaggeration. What an immense loss then, does the cause of religion sustain, in the premature prostration of those who aim at the holy ministry! And that too, with scarcely a suspicion on their part, as to the cause or the remedy, until it be too late. Hence let it be distinctly understood, that I do not charge this loss upon ministers as a moral delinquency. But if there be a remedy for it, and that remedy be understood, the same apology cannot be made for the next generation of pastors, if they refuse to adopt it.

Piety promotod by physical culture.

Once more; this physical culture of which I speak, would have a most propitious influence upon the piety of those in the sacred office. Those complaints, which are induced by neglect of this culture, are almost as destructive in their in-

fluence upon the religious character, as upon the physical and intellectual. Dietetic improprieties and neglect of exercise, are sure to produce irresolution, fickleness, irritability of temper, despondency, and melancholy. These feelings and passions are obviously most hostile to cheerful, healthful piety.* And such characteristics cannot exist in the minister, without imparting a sombre hue, and a timid despairing aspect, to the church under his care. For it is his business, both to "allure to brighter worlds and to lead the way:" And if any one will compare the features of the piety of these times, with that of our Pilgrim Fathers, he must be satisfied, that these very causes have directly and indirectly, produced the effects I have mentioned. Our ancestors could demand assured faith in all who joined the church. But were this considered requisite now, how few would stand forth professedly on the Lord's side?

The Church needs different characteristics in her ministers.

Now if I do not mistake, there never has been a period, when the church of Christ so much needed strong faith, vigorous hope, and resolute action, in her members, and firm health and long life in her ministers, as the present. Infidelity is bold, decided, and persevering, and must be met by a courage no less determined. Error—uncumbered with works of benevolence—is exploring the heights and depths of science, to gather materials for sustaining and garnishing her huge edifice. And men must be raised up to follow her with an eye that never blinks, into every recess; nay, to go beyond her farthest excursions, and bring back evidence, that after all, her researches are partial and superficial. Nor is this all: For the day is gone by, when defensive operations are all that are demanded of the Christian soldier. He must gird himself for a resolute and unyielding attack upon the strongest entrenchments of his

* "Physical and moral health are as nearly related as the body and soul." *Hufeland's Art of Prolonging Life*, p. 17. Preface.

Saviour's enemies. No rest is to be given to the Adversary, nor his emissaries, until all the kingdoms of the earth are recovered from his usurpations. And in such a warfare, strong faith must be joined to a firmness of nerve and muscle, that will shrink from no dangers or difficulties. For while one detachment of the soldiers of the cross are encountering the snows and ice-bergs of the arctic regions, another must be plunging into the miasms and damps of Africa and South America: a third, wading through the sands of the desert, to bring back the wandering African and Arabian to God: a fourth, proclaiming Jesus Christ and him crucified, in the mosques of Mecca and Constantinople: a fifth, scaling the walls of hostility, which China has attempted to build up around her, high as heaven: a sixth, following Howard in the midst of contagion and death, through the deepest dungeons and foulest lazarettos, to give liberty to the soul. And in such services, what can the men do, of shrinking nerve, and debilitated muscle—the men, whose health every exposure or extra effort will crush—and whose assiduous attention must be given to nurse a broken constitution—the men, in short, of dyspeptic, or nervous habit? Oh, let not the church send forth such combatants into these high places of the field; however ardent their love, or strong their faith. For they cannot conquer impossibilities, nor work miracles, and must therefore, sink prematurely in the unequal conflict. Such were not the apostles and other early missionaries. Paul testifies to his manual labors and temperance in all things; and these were probably the secret of his enduring so many dangers, hardships, and labours. The diet of John the Baptist was locusts and wild honey; and that of Mathew, herbs and fruits. And Christ himself may be quoted as our example, in physical as well as moral culture: for being the son of a carpenter, he was doubtless early taught the business of his father; and tradition says, that the making of ploughs was his employment. And in still earlier times, we find the author of the Psalms engaged in the occupation of a shep-

herd: and as a late writer observes, "he had in his youth, muscular power to tear open the mouth of a lion, defending his prey; to resist the grasp of a bear, and to impart to a pebble velocity sufficient to stun a giant." In the schools of the prophets, also, we find the members preparing the timbers, bringing it from the mountains, and constructing with it, their own college edifices. And not unfrequently does the modern missionary find himself obliged to follow their example.

Motives for effort in this cause.

Let then, every association and individual, who are endeavoring in any way to restore to the debilitated constitutions of our days, the physical energy of earlier times, feel themselves nerved to new efforts, when they think of the immense importance of such a reformation to the cause of literature and piety. Neither the millenium of learning, nor the millenium of religion, can come without it, except by miracle. True, the work is Herculean. A current of opinion and feeling, broad and deep, that has long been setting in the wrong direction, is to be resisted, stopped, and turned into a new channel. But the ground of encouragement is of the most cheering character. Most of the men, who are to be roused to a cooperation in this work, are intelligent, conscientious Christians—men, who need only to be convinced what is the course of duty, and they are ready to enter upon it with promptitude. Indeed, not a few of this character have already become satisfied that duty calls them to decided action in this cause. But above all, God has promised that his son shall have the heathen for his inheritance, and the uttermost parts of the earth for a possession: and we know that in this great work, he will employ the proper instrumentality. Now judging from the past economy of his providence, in the begun conversion of the world, we may conclude that he will no more employ as instruments, men, whose bodily constitution is debilitated through neglect of physical culture, than men of feeble piety,

through neglect of moral culture. We may expect, therefore, that God will prosper every judicious effort to connect primitive hardihood of body with primitive piety. He can at once carry conviction on this subject to the mind of every Christian, and bring together the whole church militant, as a mighty phalanx, in the cause of universal temperance and thorough physical culture. Indeed, we may rest assured, that sooner or later he will do this; and when it is done, the millennial army will be marshalled. Then the conflict will be short; and soon *great voices will be heard in heaven, saying, the kingdoms of this world are become the kingdoms of our Lord and of his Christ, and he shall reign forever and ever.*

APPENDIX.



NOTE A. PAGE, 19.

The Reception given to this work.

THE very favorable reception given to the first edition of these lectures, not only by the members of Amherst College, but by an intelligent public, is a sort of rebuke for several remarks of a desponding character, which I have made in different parts of the volume: but it is a rebuke which I am very happy to receive. The approbation of the work has certainly not been owing to any thing attractive in its style, or flattering to appetite in its contents. And therefore, it indicates a state of feeling in the community, on the subject of Universal Temperance, that is truly cheering. Scarcely a notice of the work has appeared, in any part of the country, which has not warmly approved of the leading principles which it contains; and very few of these numerous notices have expressed any dissent from the illustrations and application of these principles. Even the literary defects of the work have been pardoned, in the desire to recommend its contents. And were this the proper place, I might introduce not a few private testimonies, of the most respectable character, of the same import: Some of them acknowledging the personal benefit derived from the adoption of the exact system of diet and regimen, which I have recommended. Perhaps I may be pardoned, for introducing the unsought opinion of a veteran in this cause, who has sustained a feeble constitution, to the verge of three-score years and ten, by the practice of the most thorough temperance. "The volume," says he, "ought to be in the hands of every student in our country; especially of every theological student; of every clergyman; of every literary man; and of thousands of others, who may equally profit by it. Indeed, all persons whatever, have a deep concern in the subjects of which it treats, whether they be at present, *Dyspeptics*, or *Eupeptics*—whether deprived of health, or in the enjoyment of it. The former *must and will*—the latter *should*, be sensible of the value of just views on these subjects. It is easier to forestal disease, than to cure—to preserve health, than to regain it. With regard to diet, it is possible, indeed, to be too exact and scrupulous, and even too abstemious. This however, is an error, which is not often committed. You, certainly, have given it no countenance: but have pointed out that wise and felicitous course, which the best guides clearly indicated, as necessary to the enjoyment of bodily sanity, with all its attendant blessings; and which, if seasonably adopted, and steadily pursued, may, by the blessing of God, be expected to conduct the life of man, in ordinary cases (as it did that of Cornaro,) with comfort and usefulness, to its ordinary bounds. I doubt not that the work will be the means of prolonging useful life to the amount of hundreds and thousands of years, and will perhaps be far the most important and useful labor you ever have, or will have performed."

"You must, however, expect to meet with resistance, if not with contempt, from certain sources, as the reward of your labors, in this good cause. It will not be at all surprising, if opposition be made to a temperance reform, with respect to food, as well as with respect to super stim-

ulating drinks. In many cases, it will doubtless be made, on the same principle, that is, from an unwillingness to relinquish habits of undue indulgence. But we must not abandon the hope, that efforts to deprive the monster of both his paws, will eventually be successful: and if your book is now decried by many, the time is coming, when it will be duly estimated, and its doctrines met with a welcome reception: for the time is coming, when "the inhabitants" even of this enthralled and miserable world, "shall not say, I am sick"; which cannot be the case, until *perfect temperance* shall be practised in both kinds. Intemperance in the use of food is now, doubtless, productive of fifty fold more sickness and deaths, than intemperance in the use of ardent spirits, great as that evil is, in the earth."

Such a state of preparation as these facts indicate in the public mind, for listening to a system of temperance so strict and thorough, was to me totally unexpected; and I cannot but thank God and take courage. I knew, indeed, that there were many individuals, scattered through the land, who were decided advocates, and bright examples, of universal temperance: but I was not aware that the system, which I have urged, would meet with so little opposition. Perhaps that opposition may be yet slumbering in conscious security; and will perhaps yet rouse from its lethargy in giant strength. But the experiment I have made has satisfied me that there are at least seven thousand men, who have not bowed the knee in idol worship, and who will form the *Argyraspides* of temperance.

Reply to the Reviewers.

Since the above note was written, the *Christian Examiner* for Nov. 1830, has fallen into my hands, containing a systematic and well written attack upon some of the leading principles of my Lectures. The writer of that article will be pleased to accept my thanks, for the gentlemanly, temperate, and philosophical manner, in which he has, almost without exception, treated the subject. There are, however, several important, though I trust unintentional misstatements, or some misapprehension, of the views contained in the Lectures: These I wish first to point out, and then to state definitely, so far as I am able, wherein we differ. And since several of the same, or similar misstatements, are found in a review of this work in *The Spirit of the Pilgrims* for November, I may as well notice them along with those in the *Examiner*; although I had concluded to make no formal reply to the former, since the writer in *The Spirit of the Pilgrims* declares that he differs from me only "in some points of detail, but *not in his great principles*;" and I thought it better to suffer something from a misapprehension of my meaning, than to take an attitude, that might seem in opposition to one, whom, if I mistake not, I have often seen in the fore front of the battle with intemperance.

The *Examiner* states, that in my Lectures "the objections against wine, opium, and tobacco, are represented as of the same nature, and *nearly as great in degree*, as those against ardent spirit. Entire abstinence from the whole, is urged upon grounds *almost identically the same*, &c." (p. 239.) The *Spirit of the Pilgrims* also seems to understand me as "denouncing it [wine] in the same terms," as ardent spirit. Now to avoid being thus understood, I inserted this sentence at the commencement of my Prize Essay: "Of these articles, however, (*viz.* wine, opium, tobacco and spirit,) ardent spirit is *preeminent* in the work of destruction; and, therefore, abstinence from this is of *preeminent* importance."

In that Essay I grouped these articles together, *only so far as they agree in their nature and effects*; and then described subsequently, the peculiar effects of each: and certainly, the greater part of that Essay is devoted to an exhibition of the evils of drunkenness; because these are far greater than the evils arising from the use of opium, tobacco, and even wine, in moderate quantities. Where then was the need of devoting several pages of the Examiner, to prove that the influence of ardent spirit was much more destructive than that of wine, &c.? I see no difference on this point, surely, between me and either of the Reviewers. Their principal fear seems to be, that I shall embarrass and divide existing Temperance Societies, by connecting the consideration of other substances with that of alcohol. But I have stated expressly, (p. 23, Essay,) that "I should consider it *extremely injudicious, and even Quixotic*, for any Temperance Society to require total abstinence from these milder stimulants."

The Reviewers seem not to have borne in mind, that my Lectures were addressed to students; and I did urge them, to abandon all these articles. I urged them to come at once to the use of water alone, as the only safe resting place of temperance; and I extended the invitation to every young man. Nor can I believe that the Reviewers themselves would object to such a recommendation. As to "those more advanced in life," I said: "they cannot believe but that their constitutions require some of those bracing and cheering beverages, [wine, beer, cider, &c.] Well, let them have them, if they will; but let not our young men neglect to set a noble example on this subject." (Lectures, p. 132.) Suppose these Reviewers had sons at College; would they not be ready to second this advice, in respect to them?

The Examiner says: "It is wrong to speak of wine as producing deleterious effects equal to those of that quantity of alcohol which may be procured from it by distillation." And I say the same: nor can the writer find any thing in my Essay, which maintains such an error. Surely, he could not have thought me ignorant of a fact which is found in almost every elementary book on Chemistry!

The Spirit of the Pilgrims thinks that wine is not poisonous in its nature. I think it is; and my argument on the subject is a short one.—Wine owes its peculiar properties almost entirely to the presence of alcohol. Now alcohol is poisonous in its nature: and, therefore, wine is poisonous. For no dilution can change the nature of a substance; and all must admit, that the alcohol—at least, a part of it—exists in a free state in the wine. True, wine is less poisonous than pure alcohol; because it is so greatly diluted, and perhaps partly neutralized, by other substances. If in this state it may be used for years in moderate quantities, without any apparent injury, and even perhaps with decided benefit, so may arsenic be employed, much diluted, in the same manner, and with like effects. But who thinks, therefore, of saying that any mixture containing arsenic in a free state, is not poisonous?

But after all, I suspect, that practically considered, the difference between me and the Reviewers on the subject of wine, is much less than they suppose. True, I urge temperate men, to abandon the use of wine altogether: but I had reference to the wines generally sold in this country; which the Examiner declares to be "vile mixtures," "having all the essential qualities of ardent spirits;" and the Spirit of the Pilgrims calls "a great proportion of the wines sold in our country," "a vicious counterfeit, a drugged, adulterated mixture, variously prepared according to the skill and taste of the manufacturer, and which cannot be too cautiously meddled with." Thus far then, we agree. And in respect to

"the pure liquid" or "real wine," which the Reviewers recommend, I have remarked, (p. 45, Essay,) that "in those countries where the grape is cultivated, the use of wine is equivalent to the use of cider in those countries where apples are abundant." Now in respect to cider, I have merely said, that it would be better for the student not to drink it, just because water was a better and sufficient beverage; but the common and general use of cider among other classes, I have said nothing about: And if the Reviewers will engage that henceforth 'the pure liquid,' 'the real wine,' shall be substituted throughout our country, for the 'vile mixtures,' the 'vicious counterfeits,' which are now sold in forty-nine cases out of fifty, I will place the use of such wine on a par with that of cider, and write no more Essays against it. But it is idle to expect that such a substitution can ever take place. Why then should we contend about the use of a substance, which never has been, and probably never will be used, by one in ten thousand of our population? We might as well quarrel about the use of the fabled nectar.*

I protest against the effort of the Examiner to bring odium upon a certain class of the friends of temperance, who are there called "over zealous partizans," by constituting me their representative: since I had explicitly stated in my Preface, that I alone was responsible for the opinions advanced in the Lectures. At the time they were published, I knew not that one individual in the United States would coincide with me in my views, because I had not consulted an individual. This confession may show me to have been presumptuous; but it shows, also, that no other man, or class of men, ought to be charged with my faults. I did profess, indeed, to represent the opinions of a numerous class of most worthy and distinguished men in various ages: but it was much easier to excite a prejudice against an unpopular class of men, now living, than to rebuff the authority, example, and arguments, of distinguished philosophers and physicians.

The Reviewers appear to be very apprehensive lest efforts like mine, should injure the cause of temperance in respect to ardent spirit, and produce divisions among its friends. Now the longer I live, the more thoroughly convinced am I, that honesty is the best policy; and that a full developement of the truth, must, in the end, be beneficial. And I have endeavoured only to do this; that is, to state exactly the comparative value of the different kinds of food and drink. If I have not done this correctly, it is easy to prove me erroneous. But in spite of the effort of the Examiner to prove that no very bad consequences result from the use of wine and tobacco, and from dietetic excesses; I still remain of the same opinion: and my reasons for this opinion are contained in the Lectures, unrefuted. But I ask no other man to believe with me, unless he is satisfied that I am right. I do not come before the public, as "the representative" of any influential and numerous class of the community; but merely as a solitary individual, expressing my opinions solely on my own personal responsibility. What ground then, has any one to fear the effects of my efforts, unless he fears that my arguments have so much weight in them as to produce conviction in unprejudiced minds?

As to throwing an apple of discord among the friends of temperance, by urging them to apply their principles in every respect, and thus be consistent, it seems to me to be a groundless apprehension. Who shall begin the schism? Not those of us who think it a duty to abjure wine,

* Some judicious remarks may be found on this subject, in the Rev. Mr. Palfrey's Sermon on "Poisoned Drinks." See *Liberal Preacher* for August, 1830.

tobacco, and opium, as well as ardent spirit; and to avoid excess in diet. For we "should consider it extremely injudicious, and even quixotic," to endeavour to bind others to the same abstemious rules. And we rejoice that others will go as far with us as to abandon that substance, which is "preeminent in the work of destruction;" feeling a strong confidence, that as they reflect on the subject, they will ere long be constrained, by an application of the same principles, to forsake every "poisoned drink" and dietetic excess. And they surely will not fall out with us, because we judge it to be a duty to extend our principles of temperance over a wider field than they do; so long as we use no weapons but argument and persuasion to bring them into the same opinion.

The Reviewers have misapprehended and misstated some of my views in respect to food as well as drink. The Spirit of the Pilgrims "thinks the author sometimes over estimates the magnitude and extent of the evils, arising from an excess in eating, (those from drinking spirits can hardly be over estimated;)" because I asserted that disease in most cases, (that is, as explained in the next sentence, "in a majority of instances") is the consequence of intemperance in *diet*." But by the term "excess in *diet*" the Reviewer means excess in food merely: but I included excess in drinking also, agreeable to my definition on page 19th—"Under *Diet*, I shall include all that is taken into the system in the form of food and drink." In giving this latitude to the word *diet*, I followed the authority of Dr. Paris, who, in his treatise "On Diet," includes both food and drink. Now as the Reviewer says that "the evils of drinking spirits *can hardly be over estimated*," I do not see that there is any disagreement between us, except in the use of terms.

But the most important misstatement, or caricature of my views in respect to diet, is found on the pages of the Examiner. "His views," says the writer, are founded upon certain general and very important truths; but he carries all his doctrines to an unreasonable extent. He draws the reins too close. He does not allow enough for difference of constitution and the effects of previous habits. He would bring all men down too much to one uniform standard of living; and this standard he would fix at the lowest quantity and simplest quality. He has long been a dyspeptic himself, and seems disposed to measure the constitution of others by his own. There is in fact a very considerable latitude, both as to quantity and quality of food, which is consistent with perfect health."

And who denies that such 'latitude' is found among men? I have not denied it: but on the other hand have said (p. 34 Lectures) that "the man who is in vigorous health demands more than the feeble invalid—he who exercises vigorously abroad, more than the man confined to his study, or his shop—the middle aged man more than the infant or the aged &c;" and that "it is by all admitted that there is some difference in the quantity of food and drink necessary for those individuals similarly situated." The rules which I have given for regulating the diet, *do not* "bring all men down to one uniform standard," either as to the quantity, or variety of their food. I have said, (p. 87, Lectures,) that "I would not be understood as condemning a variety in the diet. I care not, if a man find a new dish for every meal through the year; provided he use them all in moderation &c." I merely object to a variety of dishes at any one meal. The rule which I have given, as to quantity, is, that it "should be very moderate at any one meal;" and by this I understand, "that quantity which physicians, and those in different situations and ages of the world, who have made a fair trial, have found most conducive to vigor and activity of body and mind, continued health and long life." And I recommend to every man to eat as much as is

necessary to accomplish these important objects ; whether it require only the daily 12 ounces of Cornaro, or any other quantity, up to the Esquimaux's repast of ten pounds. I do not prescribe any particular amount of food that will answer for all men, or any class of men, except merely as a convenient mode of commencing a system of diet. What greater latitude than this, can any one demand ? We shall soon see, however, that the Reviewer thinks this not to be enough.

The Examiner says, that I have "long been a dyspeptic myself and seem disposed to measure the constitution of others by my own." This resort to the *argumentum ab invidia*, by a writer so philosophical and dignified in general, will have the effect on reasonable men, only to lead them to the conclusion, that he must have felt himself peculiarly hardpressed in this part of his subject. I asserted (p. 126, Lectures,) that "I had not taken my own experience as the infallible guide, expecting that every man must come up precisely to my standard in diet, exercise and employment ; and that "derived as they (the rules of diet, &c) are, from the principles of philosophy and medicine, and the testimony of general experience, I have not dared to give them any other form, even when they seemed at variance, (as in a few minor cases they did,) with my own particular, and limited experience." Probably, however, the Reviewer thought it unnecessary to pay any attention to the testimony of a dyspeptic on this point. But were all the philosophers, divines, and physicians, whom I quoted so liberally, and whose system of diet, indeed, I professed to give, instead of my own, were all these dyspeptics through their long lives ? If they were not, it was surely much the easiest way to answer their arguments, and put down their authority, to consider me as their "representative," and then raise the laugh against me by labelling me "a dyspeptic !"

But notwithstanding all the misapprehensions of my meaning, that have been pointed out, there is obviously a radical difference of opinion on the subject of diet, between me and the writer in the Examiner. I maintain that the proper quantity of food is only that "which physicians, and those indifferent situations and ages in the world, who have made a fair trial, have found most conducive to vigor and activity of body and mind, continued health and long life : " and that "he, who eats or drinks more than is necessary to give to the body and mind the greatest degree of health and vigor, is intemperate." But the Reviewer maintains, that "the stomach and nutritive organs, have the power of receiving and digesting a good deal more than what is barely enough, and that without any embarrassment." "The organs themselves on which the labor first and chiefly falls, viz. the digestive—gradually become so accustomed to the increased labor, that they perform it as easily as that which originally belonged to them."—"We must confess that we have no sympathy whatever with the doctrine which would deny to those in health a moderate indulgence of the natural appetites."—

But how much is "a good-deal more than what is barely enough ?" will be the natural enquiry of every reflecting mind. "Let us not be understood" "says the reviewer," as carrying this doctrine to an unlimited extent"—"This power of accommodation in our system, can be carried only to a certain extent." But lay your finger upon the exact point to which we may indulge our appetites. Point out to us the exact "medium speed at which the engine should be driven to get from it the greatest amount of work, consistently with the safety of the machine." Aye, there is the difficulty in this system. The Reviewer evidently feels it ; and he at length says, that "the difficulty is in determining, with regard to each individual, what the measure of excess is. A great diffi-

culty it is ; one indeed which we cannot well get over—so much do constitutions differ, and so remote may be the evil consequences of excess." But if the limits between moderation and excess cannot be defined, and in strong lines too—then every man is left to eat and drink just so much, and in such variety, as his appetite, whetted and rendered unnatural by cookery and the habits of society, or chronic disease, may demand. Such a rule, will undoubtedly be well received by all who are unwilling to put the reins upon appetite. But every one who has any just sense of the dietetic excesses so common in this country, will see that it is a dangerous principle. Indeed, the Reviewer himself becomes alarmed before he finishes. "We beg," says he, "that what has thus been said in explanation of a principle which is as true in a physiological point of view, as it is beneficial in its operation on the physical, moral and intellectual powers of our race, may not be perverted or misconstrued so as to serve as an apology, in any degree, for indulgence." This is like letting go the reins of a high-spirited horse, and then entreating him not to run too fast, while at the same time the spur and the whip are applied at every step.

I hope that every man, before he settles down in the adoption of this rule of the Reviewer, and rejects mine, as to diet, will apply still more carefully the *argumentum a tuto*. If my rule allows food and drink enough to give the greatest amount of health and strength to the physical and intellectual powers, surely there can be no *danger* in its adoption. But it is a fact that multitudes do brutalize themselves by dietetic excesses, if they are left to indulge themselves as far as can be done, in their opinion, without going to excess ; that is, if they follow the *Reviewer's rule*. Admit then, that by the first system, the pleasures of eating and drinking are much diminished, when compared with the other. Yet surely, in the mind balances an ounce of safety in such a case, will outweigh a pound of gratification.

But it is not true, that rigid abstemiousness diminishes the pleasure derived from eating and drinking ; although both the Examiner and the Spirit of the Pilgrims take it for granted that such is the fact. On the contrary, it is the *universal testimony* of all, who have practiced such abstemiousness, that the mere pleasure of eating and drinking has been thereby greatly enhanced ; and that not merely while they were recovering from dyspepsy, but through long lives of almost uninterrupted health. And many of these men had for years tried all the pleasures to be found in Epicurism ; and therefore, could form a correct opinion.—"The restriction which I propose," says Dr. J. Johnson, "is so far from being the imposition of a penance, that it is in reality the removal of one." Indeed, there can be no doubt, that even during the time of his meals, the man who partakes but sparingly and of a single dish, enjoys more pleasure than the unlicensed eater ; how much then, must the balance be in his favor, when all things are taken into the account ! This will probably sound paradoxical to multitudes ; but they have only to adopt such a temperate course, to be convinced that this is no exaggeration. They will be satisfied that even the animated language of Cornaro on this subject is but a faithful transcript of his feelings.

The argument of the Examiner, to prove that a man may with impunity "indulge his natural appetites" as to diet, beyond what health and strength strictly require, which he ingeniously derives from the cultivation of fruits and flowers, from the domestication of animals, and the improved condition of man in a civilized state, merely proves that this civilized state is more favorable to long life and happiness, than a savage condition. But it proves nothing how far this superiority is to be attrib-

uted to diet. For a multitude of other modifying and powerful causes are to be taken into the account. And I maintain, that were it not for the monstrous dietetic excesses of civilized man, these causes would render the civilized state vastly more prolific in health, longevity, and happiness. I derive proof of this, from observing the effects of strict temperance on an individual; and then imagining the like temperance to be practised by all the community.

That the digestive organs may be educated to dispose of a larger quantity of aliment, than is necessary for mere health and strength, and that without any apparent embarrassment, I am willing to admit. But what is the true philosophy of this subject? It depends upon two well established physiological principles, which apply to the vegetable, as well as the animal kingdom. The first is, that *one organ of a plant, or animal, may be unduly strengthened and extended, at the expense of the others.* Thus, (to take an example quoted by the Examiner,) the rose, which has naturally but five petals, may be made by cultivation, to produce ten times as many; but this increase is at the expense of the stamens: for these are converted into petals, and thus the plant *is rendered incapable, ever afterwards, of producing perfect seeds.* Hence the botanist considers such a change as unnatural—as a deterioration; and the flower as a monster; although he would hardly say that the health of the plant was impaired.

We frequently observe the like changes produced in animals by domestication. And this is most commonly the secret source of that power, which the digestive organs acquire, for converting a large amount of food into nourishment. This is clearly stated by Charles Londe, an able French physician, in his recent work on Hygiene.* “At other times,” says he, “and particularly when the habit of eating a great deal has been acquired gradually, the stomach and intestines by their exercise, acquire a real energy and actual predominance over all the organs of the system; principally over those whose functions are related. The senses, the brain, and the muscles, lose their activity and cease to be developed. The power of excitement seems to fail in all the organs, and its whole force to be concentrated in the stomach.”

It seems then, that the man, who educates his digestive organs to receive more food than is necessary to the system, may expect that the other organs will suffer in consequence; particularly the senses and the brain, organs on whose healthy function, the intellectual powers are so dependent. This principle deserves the serious consideration of every literary man. These organs and the mind will indeed suffer in proportion to the degree of the excess in eating; yet I cannot conceive why these effects, in some degree, do not follow, when the least amount of food is taken beyond what the system actually demands.

The other principle of physiology, to which I refer, as connected with the philosophy of this subject, is this: *All the parts of the vegetable or animal system, may be developed more fully and rendered more vigorous by the application of rich and stimulating nourishment; BUT SUCH DEVELOPEMENT WILL SHORTEN THE DURATION OF LIFE.* Such nourishment acts as a stimulus to the excitability of the system, and thus urges on, with an accelerated step, all the powers of life. Thus a fruit tree, by the application of manure and other means of cultivation, may be made prolific in flowers and fruit, from a stunted and barren stock; but its life will be proportionably shortened. So the horse, by a large supply of

* Noveaux Elemens D'Hygiene, par. M. Charles Londe, Tome Premier, Deuxieme Partie, p. 13. Paris, 1827.

more nourishing food, and careful discipline, will become larger, more muscular and spirited, and capable of greater efforts; but he will the sooner wear out. And just so the man who takes a large supply of rich and nourishing food, and vigorously exercises every part of his system, may seem to improve in health, strength, appearance, and spirits; and for a time to accomplish more of physical labor perhaps, than if his food had been simpler in kind and less in quantity; though his intellectual efforts will probably be diminished. But the system thus goaded on to extra efforts by strong stimuli, will the sooner yield to decay.*

The philosophy of the subject, then, amounts to this. God has given to every human constitution a certain amount of power, beyond what is necessary for keeping the machine in perfect health; and each one can use this power according to his choice, by applying stimuli to what may be called the excitability of his system. If a man chooses to concentrate this power in the digestive organs, so as to enjoy the pleasures of luxury, he can do it; but not without proportionably reducing the power of the other organs, and impeding the operations of his mind. Or if he choose to set the wheels of life in more rapid motion, and to add energy to every organ, and every physical effort, this too he can accomplish. But he must remember, that he will so much the sooner exhaust the fire of life. Indeed, I maintain, that he can neither eat nor drink, more than is sufficient for sustaining the body and the mind in health, but at the expense of some of his bodily, and all his mental powers, or by the sacrifice of long life and serenity.

No notice is taken by the Examiner, of the religious considerations by which I have urged the adoption of a rigid, though healthy system of diet; alas, the same may be said of the Spirit of the Pilgrims. Even if it be true, that a man may eat and drink more than health and strength require, without injury, yet I maintain that the Christian is bound to deny himself such a gratification, for the sake of promoting the benevolent operations of the times, and advancing the Redeemer's kingdom. For were only professing Christians to adopt this system, it would bring to bear upon the movements of benevolence, an amount of physical, pecuniary, moral, and intellectual power, that would be felt to the ends of the earth. And it is the Christian's duty to present his body a living sacrifice to the cause of his Redeemer. But the Reviewer does not seem to have sympathy enough with such an argument as this, even to allude to it. No wonder then, that he should see so much of "exaggeration" in the Lectures: that he should feel that "the reins are drawn too close;" and that he pleads so earnestly for "a moderate indulgence of the animal appetites."

* "Culture and art, upon the whole, shorten life; and it may be admitted as a general principle, that in general all wild plants left to themselves, live longer than those which are cultivated."

"The more cultivation strengthens intensive life, and internal consumption, and at the same time makes the organization more delicate, the more is it prejudicial to the duration of life. This we observe to be the case in all hot house plants, which by warmth, dunging, and other arts, are forced to a continual internal activity, &c."

Hufeland's Art of Prolonging Life, Vol. I. pp. 87 & 88.

"The art of preserving long health and life, must consist in using no greater stimuli, whether of the the quantity or kind of our food and drink, or of external circumstances, such as heat, and exercise, and watchfulness, than is sufficient to preserve us in rigor."—*Darwin in his Zoonomia, as quoted in Sinclair's Code of Health, Vol. I. p. 499.*

But this cry of "exaggeration" does not alarm, or discourage me much, when I recollect that the same response came forth from the halls of philosophy, and even from the temples of religion, when the fearless champions of temperance first lifted up the banners of reform in respect to alcohol, inscribed with "*total abstinence*." How much did we then hear of "of the exaggerated statistics of intemperance!" and of the terrible reaction that would ensue, if measures were thus pushed to extremes. But as the monsters den was more and more uncovered, disclosing more and more of his terrific bulk and frightful aspect, and the vast Golgotha around him; even opposition stood aghast, and soon joined the general cry, "onward, onward to the attack!" I apprehend that it needs nothing but a similar uncovering of other deep dens of intemperance, to accomplish the like revolution of opinion in respect to diet. And upon the whole, I am thankful for this able and philosophical plea of the Examiner, for "the indulgence of the taste and the appetite in moderation, *as is done in the social circles of civilized life*." For in the first place, I trust it will turn the attention of reflecting and thinking men to the subject; and thus ultimately the truth will be elicited. The fate of my book is of little importance, compared with the fate of the cause it espouses. Let it perish, if it must, in the fires of its own kindling: if those fires can only continue and spread, until they have purified the land.

In the second place, I am thankful for this effort of the Examiner, because it shows me the alternative to which I must resort, if I give up the rules as to diet, which I have advocated. That alternative consists in abandoning all rules on the subject; except to consult the calls of appetite: for to tell men that they must not exceed the bounds of temperance, when you are unable to mark out those bounds, is just saying to every man, that he may fix them wherever he chooses. And if as ingenious a writer as this reviewer, could not invent a better rule, I may safely conclude that no better one can be invented.

If then, I adopt the Reviewer's principles, it seems to me, I am cast out upon the wide ocean, without rudder, chart, or compass; to be driven wherever the furious winds of appetite shall blow. I must abandon the hope of restoring the dyspeptic to usefulness and happiness, or of saving our literary youth from physical and mental debility and wretchedness. I must yield up the delightful anticipation of seeing the streams of benevolence filled to overflowing, under the golden reign Universal Temperance. In short, I must be contented to let the flood of luxury, and excess, and extravagance, roll its waves higher and higher, over the land, until the last hill is covered—But these hopes shall not be abandoned yet. I would rather say to every one, who would proselyte me to such a creed,

"Live on in thy faith—But in mine will I die."

And as to others, I am willing to leave every one to decide upon the comparative merits of the two dietetic systems, by this simple test: *Let each of them be faithfully adopted for a few months, and that one be preferred, whose effects are most beneficial.*

NOTE B. PAGE 27.

Disagreement among Dietetic Writers.

I would not be understood as maintaining, that medical writers have all agreed, even upon the fundamentals of dietetics. I know that some physicians have strenuously opposed the whole system of diet and regimen, which the majority have recommended; and have maintained, either that all rules were unnecessary, or have advanced those which would suit the most devoted epicure. In almost every case, however, these anomalous opinions resulted, either from some peculiar and extravagant theory, which the individual had adopted, or from opposition to the rigid rules of temperance, because they interfered with the writers own habits. The celebrated theory of Dr. John Brown, called the Brunonian Hypothesis, which imputes all diseases to direct or indirect debility, and which has been so extensively adopted, will afford a good illustration of this position. After being informed by his biographer, that in the early part of his medical course, he was "a free liver and thinker, his discourse and manners being equally licentious and irregular;" that in more advanced life, "his constitution, which had been hardy and robust, became debilitated, and he had the face and appearance of a worn out debauchee;" that "he was used, before he began to read his lecture, to take fifty drops of laudanum in a glass of whiskey; repeating the dose four or five times during the lecture;" and finally, that in London "he came to his lodgings, in the evening of the 8th of October, in 1788, intoxicated, and taking, as it was his custom, a large dose of laudanum, he died in the course of the night:" having learnt these facts, we should expect that he would frame just such a system as we find in his *Elementa Medicinæ*: a system, which, though discarded by every intelligent physician, has not yet ceased to exert a pernicious influence in the community.*

* The following case, given by Brown, in his *Elementa Medicinæ*, with apparent approbation, exhibits a good practical illustration of the Brunonian System.

"A gentleman engaged in a literary composition, which required an uninterrupted exertion of his mental faculties for more than forty hours, was enabled to go through it with alacrity, by supporting himself in this manner. After dining well, and setting to business, he took a glass of wine every hour. Ten hours after, he ate something nourishing, but sparing in quantity, and for some hours kept himself up with punch not too strong. And when he found himself at last like to be overcome by an inclination to sleep, he changed all his stimuli for an opiate; and finished his business in forty hours. What he had wrote, was now to be put to the press. He had next to watch and correct the proofs, which cost him between four and five hours further continuance of vigilance and activity. To effect this, he took a glass with the master printer, while his men were going on with their part of the work. The succession of stimuli in this case was first food, next the stimulus of the intellectual function, then wine, then the food varied, then punch, then opium, then punch and conversation." page, 10.

I would strongly recommend to every man, who takes his stand against the temperance movements of the present day, whether as to food or drink, to obtain the *Elementa Medicinæ Brunonis*; and out of its 757 aphorisms, he can surely find stimulus enough to keep him in countenance: Or if not, he can appeal to Dr. Brown's own example: or if both should fail him, he need only resort to the article on Longevity, in the American Quarterly Review for December, 1830.

As a class, I sincerely believe that no part of the community are so much distinguished for temperance in eating and drinking, as physicians; and I believe this is eminently true of the body of physicians, now alive in this country. Time was, indeed, when it was thought, that from their peculiar temptations, the proportion of intemperate drinkers in this class was unusually large. But the noble stand they have recently taken on this subject, has effectually effaced this stigma.

And as to excess in food, I am confident that no other portion of our citizens is so little guilty of it. Still, it would be folly to expect that even among able physicians, some should not have a strong relish for the luxuries of the table: or that their love of good living, should not influence their opinions in opposition to very strict dietetic rules—"Unfortunately," says an able physician of our own country, in addressing his professional brethren—"in all our attempts to abolish practices prejudicial to the best interests of man, we are compelled, in the outset, to encounter our own inveterate habits—habits which rise up in mutiny against reformation, and with clamorous note forbid us to proceed"—"Who can count the multitudes yearly consigned to the tomb by the indulgence of a fastidious and unnatural appetite? Headaches, flatulencies, cholics, dyspepsias, palsies, apoplexies, and death, pursue the Epicurean train, as ravens follow the march of an armed host, to prey on those who fall in the "battle of the warrior, with their garments rolled in blood." The truth of this statement will not be questioned; yet where is the physician, possessing sufficient moral courage to raise his voice against the system of modern cookery.*"

The enjoyment of vigorous health, or want of personal experience in dyspepsy, may essentially influence the opinions of physicians, as well as other men, on the subject of dietetic rules; and lead them to the conclusion, that men need no rules for eating and drinking, but to follow nature. I care not how extensive or accurate may be their knowledge of medicine; if they have never known any thing of this complaint from personal experience, they cannot judge as accurately of the means of its prevention and cure, as if they had felt its withering touch in their own persons. Hence it is, that you never find men of personal experience in this malady, among those, who maintain, that "the man who constantly aims at directing his diet and regimen by fixed rules, is overwhelmed with dyspepsia." Such men as Dr. Johnson in England, and Dr. Avery in this country, who speak from painful experience, will rather say, "it would be well for those in the enjoyment of present health, if they employed the rigid system which I have proposed, as a preservative of that invaluable blessing."† Can any reasonable being expect health without scrupulously avoiding the causes which impair it?‡

In view of these various causes, operating to warp the opinion of medical, as well as other men, the wonder is, not that we meet with here and there a physician, who joins the popular slang against dietetic rules, but that we meet with no more. The fewness of their number is, indeed, highly creditable to the profession; especially when we consider that nothing could be more injurious to their business, than the general adoption of the very system of diet and regimen which most of them recommend; though as old Cheyne says, they can have no great reason to

* Mc. Allister's Dissertation on Tobacco, p. 8.

† Morbid Sensibility &c. p. 115.

‡ Dyspeptic Monitor, p. 84.

be alarmed on this point, "when the Devil, the World and the Flesh are on the other side of the question, which have stood their ground even against the rules of life and immortality brought to light by the gospel."



NOTE C. PAGE 31.

Additional examples of abstemiousness in diet, and the consequent health of body and mind.

Rev. Dr. Hugh Blair.

"Though his bodily constitution was by no means robust, yet by habitual temperance, and by attention to health, his life was happily prolonged beyond the usual period. During the summer before his death, he was occupied in preparing the last volume of his sermons for the press; and for this purpose he copied the whole with his own hand. It seemed to give him much pleasure, that, at his advanced period of life, he was able to make this exertion. He died in the 83d year of his age and the 59th of his ministry." *Journal of Health, Vol. 1, p. 299.*

John Wesley.

The case of the celebrated John Wesley is a striking one: but it will be found in my Address delivered at Andover, inserted in this volume, p. 371. Several other similar instances will be quoted in these Notes.

Case of a young man inclining to consumption.

The following interesting example has been furnished by an esteemed correspondent.

"I am acquainted with the case of a young man, who for some time had been in a very precarious state of health, apparently on the verge of *phthisis pulmonalis*, (consumption,) who has perfectly recovered, by the use of a diet consisting solely of bread made of wheaten meal, without separating any part of the bran, and using no other liquid but pure water. This simple diet he still uses of choice, and cheerfully foregoes all other luxuries, for the benefits which he derives from it. This diet, might, however, be rendered more palatable, in the estimation of other invalids, without diminishing its salubrity, by adding a little milk to the water; and if desired, a little sugar; and the bread toasted and infused. *With such a diet a prince might even be satisfied.*"

Sir Isaac Newton, and John Locke.

"As an incentive to temperance, let it be recollected, that Sir Isaac Newton, when composing his celebrated treatise upon Optics, confined himself to water and a vegetable diet: to this abstemious mode of living, probably may be ascribed the great age, viz. *eighty five years*, to which he attained. John Locke, too, died in the 73d year of his age; his common drink was water, which he justly considered as the cause of his life being prolonged to so great an age, notwithstanding the natural feebleness of his constitution, &c."—*Dr Hosack's Address.*

Dr. Franklin and Dr. Rush.

"Dr. Franklin and the late Dr. Rush, afford additional examples to show how much may be accomplished (in the latter case, even in a slender frame of body,) by temperance both in eating and drinking."—*Dr. Hosack's Address before the New York Temperance Society.*—See *Journal of Humanity for August 19th, 1830.*

Effingham and Hender.

J. Effingham, an Englishman, lived 141 years. "In his youth, he never drank strong heating liquors; he always lived remarkably temperate, and seldom ate flesh."

Hender, of the Duchy of Holstein, lived 103 years, "an industrious day laborer." "His food, for the most part, was nothing but oat-meal and butter-milk."—*Hufeland's Art of Prolonging Life, Vol. 1, p. 145.*

Case of the English Quaker.

"I could relate many instances of persons who were much emaciated, some of whom were of considerable stature, becoming muscular and fat upon four ounces of the most nourishing and easily digestible food, taken three times a day. A patient lately gave me the following account of his own proceedings with respect to diet. He said, "when thou toldest me to weigh my food, I did not tell thee that I was in the habit of weighing myself, and that I had lost 14 pounds weight per month, for many months before I saw thee. By following thine advice, I have got rid of what thou didst consider a very formidable local malady; and upon thy allowance of food, I have regained my flesh, and feel as competent to exertion as formerly, though I am not indeed so fat as I used to be. I own to thee, that as I got better, I thought thy allowance rather scanty, and being strongly tempted to take more food, I did so; but I continued in the practice of weighing myself, and found that I regularly lost weight upon an increased quantity of food, wherefore, I returned to that which was prescribed to me."—*Abernethy, as quoted by Kece, in his Dissertation on Costiveness, p. 161.*

The following case, from the Boston Recorder of 1830, seems worthy of insertion:

A Russian peasant.

In April last there died at Pleskow, in the government of Novogorod, Russia, a farmer named Michofsky, who had attained the wonderful age of 165 years. He led a very sober life. He never ate meat more than twice a week. At 120 he still labored in the field, and only desisted on account of a sprain in the foot. He has left 4 children, 36 grand children, and 16 great grand children. His mother lived to the age of 117, and one of his sisters to 112, but his father died at 52.

Mr. Horry.

"Many years ago travelling in South Carolina, I fell in with a Mr. Horry, the brother of general Horry of revolutionary fame. He told me he was the oldest man in St. Johns, Colleton, and had seen the parish buried three times over. I observed to him that he must have been blessed with an excellent constitution. He said no, quite the reverse—had his constitution been good, he should have been dead long ago. I asked him how he explained that. He said he should have done as

others he was raised with, did—attended clubs, dinners and hunts—but he was always compelled to take care of his health, and live temperately, while others, presuming on the strength of their constitutions, put them to trials which they could not endure. He observed that the most robust people in South Carolina were generally the first to die.”—*Journal of Health* vol. 1. p. 357.

Ancient Philosophers.

“The following list of long lived persons among the ancients, is introduced by Van Hooven, with the remark of Lucian, that it may be useful, “by showing that they who took the most care of their bodies and their minds, enjoyed the longest lives, accompanied with the best health.”

Hippocrates lived 109 years: Empedocles 109: Georgius 107: Xenophilus 105: Pythagoras, who it is stated, never knew satiety, reached the age of 100. Zeno lived to 98, a stranger to disease, and never incommoded by a real indisposition. His life, we are told, was an example of sobriety and moderation: his manners were austere; and to his temperance and regularity, he was indebted for the continued flow of health which he enjoyed. Laertius, when he lost his life, was 90; and Diogenes died when in his 90th year. Pyrrho, remarkable for the command which he held over all his passions and feelings, lived also 90 years. Josephus informs us, that the age of the Jewish recluses was almost invariably prolonged to one hundred years; and this he accounts for from their simple diet and mode of living.”—*Journal of Health*, vol. 2. p. 31.

Examples in Contrast.

Gluttony never was carried to such an awful pitch of extravagance, as by many of the Roman Emperors. The memory of every one, at all conversant with history, recurs at once to the names of Nero, Heliogabalus, and Vitellius; whose table expenses for eight months are said to have exceeded 30,000,000 of dollars. The three Apicii too, who were Roman citizens, must not be forgotten in this connection: the most notorious of whom, is called by Pliny, “nepotum omnium altissimus gurgis”—“the deepest whirlpool of all spend thrifts.” The history of the life and death of such men, affords an instructive commentary on the annals of temperance.

Frederick the great.

Perhaps the following account of this distinguished prince, from a Medical Review, will be as instructive as that of any modern gourmand.

“Frederic the Great, King of Prussia, was often afflicted, (as well he might be,) with complaints of the stomach and bowels. His physician, Dr. Zimmerman, visited him one morning, and prescribed his favorite remedy, the juice of dandelion. His majesty promised to take the medicine and requested the doctor to repeat his visit at 3 o'clock. The medicine was taken with good effect and at dinner the king acquitted himself as follows; First, he ate a large quantity of soup, composed of strong, and extremely hot ingredients, to which he added, as usual, a large spoonful of ginger, nutmeg and other spices, after this he ate heartily of *bouilli a' la Russe (a' la Russe*; that is to say, prepared after the Russian manner, with a pint of spirits.”) After this, an Italian dish, called *Bolenta*, composed of flour of Turkey corn, and Parmesan cheese, to which is added the juice of garlic, and then fried in butter

until a crust is formed as thick as one's finger, and afterwards seasoned with the strongest spices. He then ended his repast by eating a whole plate full of eel-pie, very hot from the oven. At three, as directed, his physician called, and found his majesty much indisposed. His looks were indeed terrible. His first words were, "I am now only an old carcase, fit to be thrown to the dogs." On the morrow however, he was so far recovered, as to be able to repeat a similar course. This mode of living soon terminated his days. Had this great monarch but known the pleasure and observed the rules of Temperance, how happy might he have been so far as health was concerned, instead of the miseries which he daily suffered, and the end to which he was reduced?"

The preceding extract was sent me by a revered and aged clerical friend. The following extract is from a letter of another venerable father in the ministry.

"While reading your work, I was often reminded of a remark, which Dr. Chauncey made to me in my early days, that "*some people dig their graves with their teeth.*"—I am more convinced of the truth of these words than formerly."



NOTE D. PAGE 55.

Effects of Excess in Diet.

Many will consider me (as the Reviewer has done, see Note A.) as exceeding the bounds of fact, in imputing so much to over eating and drinking—particularly the former. The respectable authorities quoted in the text, however, will show that, if I err, I am not alone in error. More authorities might be adduced, bearing on the same point.

"Gluttony and intemperance," says the Edinburgh Review, "are the source of two thirds of the diseases which embitter the life of man."

"The due degree of temperance," says the American Quarterly Review, "would add one third to the duration of human life."

"Even the robust are not perfectly secure from the dangerous effects of a full meal." "Apoplexies," says Dr. Fothergill, "proceed perhaps more frequently from this cause, than from all the rest put together."—Of this remark, indeed, our newspapers afford abundant corroboration; since nothing is more common than accounts of the sudden death of individuals, who "appeared to be in perfect health, and had just eaten a hearty dinner;" or "who had gone to bed in apparent good health, after having enjoyed a hearty supper," and so forth. "It has been thought," says Dr. Fothergill, "that more people suffer by hard drinking than immoderate eating. *My observation leads me to take the opposite side.*—*Rees' Cyclopaedia, Article, Diet.*

The effects of the habits of civilized life in producing disease, are thus enumerated by an eloquent French writer:

"The extreme irregularity in the mode of living, the excessive labors which consume the bodies and break down the spirits of the poor, the still more dangerous softness which enfeebles the rich, destroying the one by their wants, and the other by their excess; the ease with which sensuality can be excited and gratified, the too luxurious food of the rich, the monstrous mixtures, the pernicious seasonings, which stimulate and overwhelm them with indigestion; the bad and often insufficient nourishment of the poor; the spoiled provisions, the sophisticated

drugs; the knavery of those who sell, and the errors of those who administer them; the want of rest, the violent passions which agitate and exhaust us, the chagrins and vexations incidental to all conditions, are so many fatal proofs that most of our ills are our own work, and might have been avoided by adhering to the simple, uniform, and solitary life, prescribed by nature."

"The history of the young savage of Aveyron," says Rees' Cyclopaedia, "strikingly illustrates several of the foregoing remarks. In his wild state he bore the cold of the severest winter without any clothing, and could remain, when he was first taken, for several hours together in the winter, exposed half naked to wind and rain on the wet turf. He refused highly seasoned dishes and strong liquor, even when very hungry, and ate at first only potatoes, acorns, and raw chesnuts. His civilization went on so rapidly and successfully that in a few months he had three severe colds, and soon after became subject to epileptic fits."

"A friend, says Sir John Sinclair, speaking of the Irish boys, whom he employed on his farm or in his stable, remarks: 'At first, they were lively and intelligent, exceeding what is generally met with in youths of a more exalted walk of life in England. But in proportion as these boys were better fed, they universally relaxed in activity, and became dull and stupid.'"

Dyspeptic's Monitor.

During the past year, a work of great merit has appeared in New York, by Dr. Avery, entitled *The Dyspeptic's Monitor*. To this gentleman's personal experience I shall probably refer in another place. After saying that his work ought to be in the hands of every nervous invalid in the country, I shall in this place quote only his remarks upon the effects of excess in eating; and particularly upon the excesses of this description in our own country; which must be regarded as of peculiar weight, from his extensive opportunities of observation.

"What occasions," says he, "*two thirds* of all the inflammatory and febrile diseases? but *arises* in themselves not serious, operating upon a system highly susceptible of diseased action from being overcharged with stimulating and nutritious matter." Page 73.

"All our most eminent physicians agree in this one point, that as a people we eat far too much hearty food; that is, we take in more rich nutriment than we require, and the consequence is, our system becomes overloaded and oppressed, our organs are clogged in the performance of their several functions, the circulating fluids become too thick and stimulating, and the proneness to derangement and diseased action greatly increased. Hence arises a large proportion of the inflammatory and febrile diseases amongst us, and hence it is that copious blood-letting and active medicines are so much more required in America, than in most other countries," &c. Page 69.

"It has been stated that indigestion is exceedingly prevalent in this country. Considerable observation induces me to believe that it is far more so, than in any other, not even excepting England; where it probably exists to a greater extent, than in any other part of Europe," &c. Page 61.

Dr. Avery imputes this remarkable prevalence of dyspepsy among us, first, to the unfavorableness of the climate; secondly to our mode of living. "Not only Americans who have been abroad, but all foreigners who

* Extract of a letter from a friend,

have been among us, agree in this, that in no country is the table loaded with such profusion as in ours." He speaks here "of the every day meal of all classes, from the laborer to the most opulent." And after giving the daily fare of our common farmers, he says, that "the breakfast of the French farmer is a roll of bread, a cluster of grapes or an apple, and some thin weak wine, *not as strong as our cider*. His dinner consists of bread and vegetables in the form of soup or pottage; if he eats meat at all it is literally cooked to rags, and his thin wine. Instead of our tea, he has a roll of bread and a glass of wine. In England it [living] is far more substantial, but with little variety. Tea, oatmeal and milk, or bread and cheese, and malt liquor for breakfast; meal, bread and vegetables, with malt liquor, for dinner; and bread and cheese, with the aforesaid beverage, for supper.—Page 65. The most remarkable peculiarity in all our meals, is what may be emphatically called an American breakfast—a meal no way inferior in quality and quantity to a European dinner; and one, I am thoroughly convinced, that occasions more weak stomachs than can possibly be imagined by those who have not paid particular attention to the subject." Page 66.

A third cause of the great prevalence of dyspepsy among us, assigned by Dr. Avery, is "eating too fast; which may be set down as one of our national peculiarities, as every foreigner on first coming among us is forcibly struck with the rapid manner in which we devour our food." A fourth cause is the use of spiritous liquors. A fifth, the want of fresh air, particularly among our females. And finally, "the chewing of tobacco," "which has been set down by Europeans, as the opprobrium of Americans."

From the Encyclopedia Americana; Article Dyspepsia.

"The most common causes of dyspepsia are excesses of various kinds especially in the quantity of food eaten. Most individuals in this country err in this respect. Meat at three meals daily, can be borne only by the most robust frames, and by hard laborers."

Testimony of Dr. William Lambe.

"These facts are enough to induce a suspicion, that our diseases are much exasperated by our manner of living, and the full diet of animal food to which we are habituated."

"In persons living very grossly, eating largely of animal food two or three times a day, the abbreviation of life will be proportionably greater; such persons, perhaps cutting off one fourth, one third, or perhaps even one half of their days, by their excesses. However, under common circumstances, the above mentioned allowance of one sixth, is probably abundant."—*Additional Reports on the Effects of a peculiar Regimen in cases, &c. By William Lambe, Fellow of the Royal College of Physicians.* London: p. 93 & 106.

Dr. Reid's Opinion.

"Gluttony is one of the most frequent conductors to the grave.—It is one of the unenviable privileges of the comparatively wealthy, to be able to gormandize to their own destruction."

"The appetite is increased much beyond what is natural, by the excitement of miscellaneous and highly seasoned dishes, of which we can eat more, although we can digest less, than of plainer and less varied diet. The list of our viands would be sufficiently numerous, although

we were to strike all poisons out of our bill of fare."—*Reid's Essays on Hypochondriacal and other Nervous Affections*, p. 109 & 110.

Extracts from Sinclair's Code of Health and Longevity.

"It cannot be doubted, that among the higher orders of society almost all the chronical diseases, many of the infirmities of old age, and shortness of life in general, are owing to repletion. In polished nations, indeed, men commonly eat at least double the quantity of food necessary, and often four or five times more than they ought to do."—Vol. I. p. 481.

"A number of old persons have lived in great indigence; a proof of the justness of Lord Bacon's observation, that intemperance of some kind destroys the bulk of mankind, and that life may be sustained by a very scanty portion of nourishment." Page 492.

"Many are the causes of ill health; but the principal one is the variety and excess of food." Page 493.

From Hufeland's Art of Prolonging Life.

"It may with truth be asserted, that the greater part of mankind eat more than is necessary; and by being crammed and over fed in infancy, we are deprived of that natural sensation which ought to tell us when we have enough. Vol. II. p. 243.

From the Υγιεινα Διαταγαι, or "Hygienic Precepts," of Dr. C. Caratheodorc. Paris, 1829.

"In general all men eat more than (natural) appetite requires.—To enjoy good health, a man must always rise from the table a little hungry." Pages 26 & 27.



NOTE E. PAGE 55.

Corpulency.

Injustice is often done to persons of corpulent habit, a red gross countenance, and inflamed eyes, by the suspicion that they are intemperate in the use of wine, or ardent spirit. For excess in drinking is not always the cause. But to impute such obesity and grossness of appearance, to excess, either in eating or drinking, would rarely, very rarely, be doing injustice. I know, indeed, that in a few cases "a deposition of fat takes place in spite of a constant moderation in the gratification of the appetite." But in such a case, there is not that grossness of appearance which is manifested in the obesity produced by excess. and every man of observation must conclude, with a writer in Rees' Cyclopaedia, that "the general exciting cause of corpulency is certainly a free indulgence of the appetite, in the use of nutritive food and fermented liquors." Such corpulency, indeed, may not in all cases result from as great and criminal excess, as an excessively thin and meagre habit; for it is a curious fact, that dietetic excess produces fleshiness in one constitution, and leanness in another; and abstemiousness, that is, a reduction of the quantity, or a change of the quality, of *ingesta*, will cure both these states of the system: in other words, it will make the fat man leaner, and the lean man fatter.

Opinion of Dr. Lambe.

"I cannot doubt, that as a general rule, it may be safely asserted, that the florid are less healthy than those who have little color. An increase of color has ever been judged to be a sign of impending illness.—If a man becomes fuller, says one of the ancients, [Celsus] and better looking, and with more color than usual, he ought to consider these blessings as suspicious."—*Additional Reports*, &c. p. 125.

Examples of Corpulency.

It may amuse the curious, and be a warning to the corpulent, to mention a few of the most remarkable cases of obesity that have ever occurred in the human animal. The case of Dr. Cheyne has been already described.

Sennertus mentions a woman, 36 years of age, who weighed 480 lbs. and a man, whose weight was 609 lbs.

John Love, an Englishman, by resigning himself to the pleasures of the table, passed from a state so meagre and thin, that he was thought to be in a consumption, to one so corpulent and gross, that he weighed 364 pounds. The consequence was, that he died in his 41st year.

Love, however, was greatly surpassed in size by one Edward Bright of Malden, in Essex, England. This man, when he died, at the age of 30, weighed 616 pounds! and after his death, seven men, of 21 years of age, were enclosed in his waistcoat, in consequence of a wager; "without breaking a stitch or starting a button."

But the most remarkable of *les gens de graisse*, was Daniel Lambert; who, in 1806, when he came to London, at the age of 36, weighed no less than 794 pounds! It is said that his obesity was in a great measure hereditary.

The means of reducing corpulency are very simple, and in general perfectly efficacious. And if it be true that excess in eating or drinking is generally its origin, let every one disposed to obesity, who values his reputation among temperate men, and his health and usefulness, apply these rules without delay. They consist in abandoning all distilled and fermented drinks, and using only water; in reducing the quantity of food; and if necessary, in using only a vegetable diet, in using much exercise, and in devoting but little time to sleep. In this way, did Cheyne reduce his weight from 418, to 140 pounds. The effect was similar too, upon Cornaro, who had become very corpulent, previous to the adoption of his temperate habits. A case not less striking, was that of Thomas Wood, a miller of Billericay, England. At 40 years of age, he became very fleshy, being a most voracious glutton and beer bibber; and was soon attacked with dyspepsy, melancholy, violent rheumatism, and the gout. The reading of "Cornaro's Life", convinced him that intemperance was the cause of all his complaints. He gradually reduced the quantity of his food and drink, until at length, he lived entirely on a very simple moist pudding, without any kind of drink for many years; "expressing in the highest terms the great pleasure and tranquility of mind which he enjoyed in consequence of it. The poor diet, to which he had accustomed himself, became as agreeable to his palate, as his former food used to be; and he had the additional satisfaction to find his health established, his spirits lively, his sleep no longer disturbed by frightful dreams, and his strength so far improved, that he could carry a quarter of a ton weight.—In short, to use his own expression, he was metamorphosed from a monster, to a person of a moderate size; from the condition of an unhealthy, decrepit old man, to perfect health, and to the vigor and activity of youth."

Rees' Cyclopaedia Article Corpulence.

NOTE F. PAGE 56.

Opinion of the Reviewers as to the quantity of food recommended in these Lectures.

I find it to be a prevalent impression, that I insist in my lectures upon confining every sedentary person to about 16 ounces of solid food per day. The first Lecture need only be read to show any one that this is altogether incorrect, and that I recommended each one to decide upon the quantity of food which his constitution requires, *by its effects*. But I have expressed the opinion, that probably few sedentary men can exceed 16 ounces of solid, and 24 of liquid food, per day, and yet preserve the health and spirits; and so much less is this quantity than multitudes eat, that they consider it starvation. To show them what is the opinion of others, as to this quantity, I shall quote a few sentences, first from a Review of these Lectures in the Quarterly Register of the American Education Society, for August 1830; (a Review certainly of great merit,) and secondly, from a Review of the same, in the November No. of the Spirit of the Pilgrims.

"If the quantity (of food) which the Professor recommends, is too liberal (and it is more liberal than some eminent physicians allow, and more so than some constitutions, can bear) it may be determined by the indications of appetite and of subsequent feelings. So if too limited. But while we concede the propriety of some accommodation of the rule to constitutional differences, we would not be understood to question—no, not for a moment,—that the quantity which the Professor recommends is amply sufficient for the constitutions of sedentary men; and we would earnestly recommend to all who have not obvious reasons to the contrary, a confinement of their diet within these rules. Nor do we think that those scholars, whose constitutions require a more liberal dispensation, can far exceed this quantity without peril of subsequent, it may be distant disease, and without some degree of immediate mental hebetude."—*Register*, p. 5.

"Neither does it appear to us that the author has much occasion for the apprehension, to which he so often alludes, that he will be thought to restrict too closely the quantity of food which he allows. Except in the mere feeling of living by weight, the man who is allowed his "twelve to sixteen ounces" of meat and vegetables, and fourteen to twenty four ounces of liquids, would seem to us to have very little reason to cry out against starvation. And if we take a pretty liberal interpretation of his description of what he regards as a "single dish," he need be no cynick who shall be satisfied with the variety allowed."—*Spirit of the Pilgrims*, p. 580.



NOTE G. PAGE 60.

Great Importance of the second rule of Diet..

The more I reflect and observe on the subject, the more important does this second rule appear. For the great mass of mankind, who are in good health, it would be more easily applied than the first rule as to quantity; and could they be persuaded to eat slowly of but one dish, it would not be very common that they would be guilty of any very in-

jurious excess, even though regardless of all other rules. It has the advantage also, of being a very definite rule and easy to understand. A man may not be able to judge correctly in all cases from the effect of his food, whether the quantity was too large or small. But every one knows, that when he partakes of pudding after meat, or of pies or cakes after bread and butter, he is eating a second dish: nor can any such person reprove his neighbor, for partaking daily of his dozen dishes; since every man must be left to himself, to judge how many sorts are necessary for him, provided the rule under consideration be transgressed. In short, were I to select any watchword for the friends of this branch of temperance to adopt, it would be,—“*Simplex et unum.*”

*Faithful description by the Roman poet, of the effects of a violation of this rule of diet.**

Horace has described, with the graphic accuracy of one who spoke from experience, the effects of violating the dietetic rule, under consideration.

—nam variæ res

Ut noceat homini, credas, memor illius escæ
 Quæ simplex olim tibi sederit. At simul assis,
 Miscueris elixa, simul conchylia turdis;
 Dulcia se in bilem vertent, stomachicque tumultum
 Lentâ feret pituita. Vides, ut pallidus omnis,
 Coena desurgat dubiâ? Quin corpus onustum
 Hesternis vitiiis animum prægravat unâ.
 Atque adfigit humo divinæ particulum auræ.

· Lib. 2. Sat. 2. L. 71.



NOTE H, PAGE 67.

Comparison between the habits of living in the city and the country.

A reviewer in the *Spirit of the Pilgrims*, says, in quoting my description of the ordinary fare of a respectable family in the community; “truly, our country friends, far exceed their city brethren in luxurious living, if the following is not a somewhat exaggerated description of the ordinary diet, of literary and religious men.” I did not mean that all these men indulged to such an extent; nor that any did it always: but only that this was the usual fare among the healthy, when it could conveniently be obtained. Nor has any one of my country brethren, ever hinted to me, that I had exceeded the bounds of truth on this point. But I do believe it to be a fact, that our “city brethren”—that is, the literary and religious part of our cities—are far more abstemious in the general course of their living, than the correspondent classes in the country. “A city feast” has, indeed, long been proverbial for its extravagance; but literary and religious men, it is hoped, have little to do with such scenes. In the city they see the need of setting their

* Not less appropriate, so far as the mind is concerned, is the sarcastic couplet of Shakespeare:

Fat paunches have lean pates; and dainty bits
 Make rich the ribs, but banker out the wits.

faces more decidedly against all excesses, than the same classes do in the country. And in respect to food and drink, literary and religious men in the city, find it necessary to be more abstemious than those in the country; because they are surrounded with many circumstances tending to produce dyspepsy, which do not exist in the country. If they were not more abstemious, dyspepsy would make more fearful ravages among them than it now does. I am happy in believing that so large a proportion of them, foreseeing the evil, avoid it; while so many in the country, fall victims, in spite of their regular and seasonable hours and pure atmosphere.



NOTE I. PAGE 78.

Boarding Companies in Amherst College.

The plan of boarding in companies was introduced into this Institution in the year 1826. Three or four beneficiaries of the American Education Society, pressed by pecuniary embarrassments, agreed with a farmer in the vicinity to furnish them with milk, bread, butter, &c. at the market price; and paid the family a certain sum, for cooking their provisions. The next year, two companies of 12 each, were formed, on a similar plan; one of the number being chosen by vote to act as steward. These used meat but once a day, and dispensed with sugar. The system gradually gained popularity, until at present, not far from 100 board in essentially the same manner, in 8 or 9 companies. Perhaps one third of these dispense with tea, and nearly as many with coffee; substituting milk and water sweetened. Many adopt this system from choice, who are not obliged to do it from pecuniary considerations. The expence will of course vary according to the mode of living agreed on by the company. The maximum weekly expence to individuals, has been, I believe, \$1,12½ cts.: and the minimum, 64 cents. Generally, it is between 90 and 100 cents.

At Amherst Academy.

The system of boarding, above described, was introduced into this institution in the autumn of 1828, under the superintendence of the Principal—the greater part of the students boarding together in the Academy buildings and paying only the actual cost of the food, cooking &c. The price of the board was then \$1,17 per week. The system has been continued till the present time—the price varying according to circumstances; but averaging a dollar weekly. Smaller companies of the students have been formed, as in the College; and these have sometimes reduced the price as low as 62½ cents per week. In these cases, meat is used only twice a week, and milk four times. The whole diet, indeed, is of a very simple, though healthy kind, and each one is pledged to practice the strictest economy.

At Williams college.

It is gratifying to learn that this system has been recently adopted at some other literary institutions in the country. In the spring of 1830, two students of Williams College, adopted the following wise and salutary regulations,

1. "We will have on the table no tea nor coffee."
2. "We will have meat but once a day."
3. "We will have no warm bread."
4. "We will have cakes and pies but once a week."
5. "When we have meat we will have no butter."

About 20 students soon adopted these rules, and ere long "a majority of the students preferred the temperance table"—which was spread for "about one third less than the usual price of board."—"This course of living was found to be very manifestly favorable to health and spirits—the temperance boarders, being able to accomplish much more intellectual labor than usual, with less necessity for exercise."

Boston Recorder, Nov. 10, 1830.

At Bangor Theological Seminary

In the fall term of 1829, a few students of the theological Seminary in Bangor, Maine, substituted milk and water for tea and coffee. Last summer, this number increased; and last autumn the following resolution "was voted almost unanimously," and was subsequently signed "by three fourths of the students."

"Being satisfied that the use of tea and coffee, if not injurious, is unnecessary to our health and happiness, and consequently the occasion of needless expence; therefore,

Resolved, that we will dispense with the use of both at our commons' table, so long as we remain connected with this seminary."

"Those who have tried the experiment long enough to discover its effects," continues the account, "are fully satisfied of its utility; and would not readily abandon it. It is their uniform conviction, that they enjoy better health and spirits, and are better prepared for study, than when they used tea and coffee"—"Important changes have recently been made in relation to the quantity and variety of food consumed; but they are yet of too recent origin to judge correctly of their results."—*Journal of Health*, vol. 2 p. 120.

At Andover Theological Seminary.

I have recently learnt, that the members of this Institution, who board in commons, voted at the commencement of the present term, to exclude tea and coffee from commons; to have their breakfast of bread and milk, or milk porridge; their dinner of one dish of meat with vegetables and bread—no puddings or pies—and their supper of bread and butter, or bread and milk, or milk porridge and water. But as this vote was only "an experiment for this term," it would be premature to state any thing concerning it, except the mere fact.



NOTE K. PAGE 80.

Dyspeptics must abjure every article that does not agree with them.

It is not only almost impossible to convince a voracious dyspeptic, that he eats too much, but nearly as difficult to persuade him, that a great variety is not necessary for him. He is always venturing a little beyond the limits of strict temperance; and in that way does he defeat

all the good effects of régime. You often see such a man, after going through a long course of medicine, or finishing a long journey, throw himself back into as bad a condition as ever, by indulging for once only, in some variety of food which past experience has taught him is hostile to his constitution. But until such a man firmly resolves not even to touch those articles which he has found by experience, or which physicians tell him, are of difficult digestion, he cannot obtain any permanent relief. So long as he is daily inquiring, may I eat a little of this cake, or this sweetmeat, or any thing else that does not agree with him, he must be content to bear the burdens of dyspepsy. "He must make up his mind," says a physician, "to live ENTIRELY on such food as will agree with him, and not even taste any thing else."—"The resolution must be taken and religiously adhered to, or health is out of the question."—"All the remedies on earth will not restore tone to the stomach while it is daily overloaded with food which from quality or quantity it cannot digest."—"Does he look with horror upon the man who deliberately seeks death at the mouth of the pistol? or with disgust upon him who immolates himself at the shrine of Bacchus? while he is as surely though more slowly, committing suicide by indulging in eating?"—Alas! how few dyspeptics will suppose that these remarks apply to their case! The fact is, most persons of this character have become real epicures, as much attached to their savory and high seasoned food, as any practised gourmand; and the wonder is, not that they are dyspeptic, but that they are alive.



NOTE L. PAGE 91.

Another example illustrative of the good effects of occasional abstinence or fasting.

"Alexander Avery, of Johnston county, N. C. is one of the only two surviving members of the Congress which framed the constitution of North Carolina in 1776. I think he is now about ninetyfive years old. Twenty years ago he told me he had never been bled, nor had taken medicine in his life. His remedy for every complaint, (diseases he had few,) was to abstain entirely from food until he found himself well or had an appetite. He has sometimes fasted nearly a week. He is of a thin habit of body, and while I knew him, had the appearance of a frail constitution."—*Journal of Health, Vol. I. p. 356.*

Abstinence a substitute for bleeding, sweating, or taking a cathartic.

"Much of the administration of medicines might be superseded, would mankind submit their appetites in a somewhat greater degree to the control of reason; and Dr. Cheyne's observation is very just: Any one, says he, may lose a pound of blood, take a purge, or a sweat, by dropping the great meal, or by abstaining from animal food, or fermented liquors for four or five days, as effectually as by opening a vein swallowing a dose of pills, or taking a sudorific bolus.—*Rees' Cyclop. Article Diet.*

* Dyspeptic's monitor, p. 34.
34*

NOTE M. PAGE 94.

Some cautions necessary in changing dietetic habits.

I ought, perhaps, to add in this place, some suggestions by way of caution to any who have made up their minds, to adopt any considerable change in their dietetic habits. A writer in the Quarterly Register of the American Education Society, suggests, that I have not been guarded enough on this point; and perhaps there is some foundation for the suggestion; though I feel some hesitation in recommending to a man to change a bad habit in eating, *gradually*, as he does; and for the same reason on account of which he urges "the devotee of Bacchus to an immediate dashing of the bowl from his lips," viz. "the fear a gradual change would end in nothing but confirmed intemperance:" for I believe it quite as hard for a man to forsake excess in eating, as in drinking. I know that great and sudden changes of the habits are apt to affect the constitution deeply; though probably in nine cases out of ten, the reduction of the food at once to the standard of temperance, would produce, as it does in most cases to abandon alcohol, nothing but an increase of mental and bodily health and happiness. In some cases, however, the constitution would suffer. Suppose then, that the change be made at once in every instance, and so soon as the injurious effects begin to appear, let appetite be indulged a little more for a short period, and then alternately denied, until the victory be complete. I should not object, however, to a man's attempting to reform gradually from his excesses, rather than that he should not make the attempt at all. But whether the change be sudden or gradual, certain precautions will be of importance to success.

If, for instance, a man would greatly reduce the amount of his animal food, or even adopt a vegetable diet entirely, the Spring or Summer is undoubtedly a more favorable time than the Winter, to commence the reformation. It is a better time also, for such a change, when the mind is free from care and not pressed with business, than when incessantly occupied and jaded out. Let a man also, who is resolved to commence a work of this kind, follow the example of those who commence training for pugilists in Europe, viz. to begin with an emetic or cathartic, or both; lest the sufferings produced by foul or overloaded digestive organs, should be imputed to the change of diet.

Let every one, however, be careful, lest under the impression, that the most favorable time for the change has not arrived, he should continue to procrastinate the work, season after season, until health is gone forever.

Vivendi recti qui prorogat horam,
Rusticus expectat dum defluat amnis; at ille
Labitur et labetur in omne volubilis ævum.

Hor. Lib. I. Epist. 2. Lin. 41.

But another more important suggestion relates more particularly to those whose pursuits are intellectual. The effect on the mind, of reducing the quantity and simplifying the quality of food, is usually like removing a huge weight from the main spring of a machine. The intellect acts so much more freely, that the student lets it run, and does not feel the necessity of so much exercise in the open air. Rejoicing in his

deliverance, he grasps at too much; and imagines that he can with impunity, make up for lost time. But ere long, he begins to find that he is not a disembodied spirit, and that his mind is still associated with flesh and blood, and not encased in iron. In short, ere he is aware of it, his overstrained mental efforts have severely shocked his still frail bodily organization. Ignorant of his error, he imputes the bad effects entirely to the change in his diet; and very probably give himself up to his former excesses in eating, and becomes thoroughly and inveterately prejudiced against the whole system of dieting and abstemiousness. Whereas, had he been careful to spend much time in vigorous exercise abroad, and imposed for a time a less task upon his intellectual powers he would have rejoiced in the change of his habits, through a long and happy life.

The course many take is this. Conscience tells them that they are too fond of the luxuries of the table, and that they should be great gainers by adopting proper rules of abstemiousness. Still appetite pleads loudly for indulgence; and they would fain believe that it is not necessary to impose upon it those restraints that are demanded. In short, they commence dieting with strong prejudices against it, and with the hope that it will prove to be unnecessary, and even hurtful, in their case. Accordingly they are ready to take the alarm the moment a bad feeling seizes them, and to impute it to the change in their diet; even though they have only half adopted a thorough system, or have been exposed to atmospherical vicissitudes, or have made undue bodily or mental exertions. No matter what is the real cause; the hated change in their diet is in their view, a sufficient cause, and they resolve to try the experiment no longer.

Others, who adopt a system of diet and regimen, find such a wonderful improvement in their health, and in their corporeal and mental vigor, that they become enthusiastic on the subject; and because they have doubled their ability for labor, and their capacity for enjoyment, by the reduction of one half the former quantity of their food, they infer that they shall gain in an equal ratio, by a still farther reduction. They continue to push the experiment farther, until they have reached as great an extreme on the side of abstinence, as they formerly did on the side of repletion. The consequence, ere long, is an alarming prostration of all the powers of life and intellect. Then, not only does the man himself give up all confidence in systems of diet and regimen, but he becomes a monument for the triumphant derision of all those who hate rules of diet, because they love the indulgence of the appetite.

Is it best sometimes to give up the reins to appetite and indulge in feasting?

There is a famous rule, recommending an occasional excess in eating, which I have passed over in silence. Lord Bacon is usually quoted as high authority on this subject. "Let him who would enjoy health," says this writer, "occasionally vary his course. Sometimes let him feast and sometimes fast, sometimes oversleep and sometimes watch, sometimes walk and sometimes run; yet let him rather fast than feast, rather than watch let him oversleep, and rather walk than run." Doct. Londe has given the essence of this rule, though in a more cautious and less objectionable manner, in his *Nouveau Elemens, D'Hygiene, Deuxieme Partie*, p. 158. "Since the power of the stomach," says he, "is not limited to a particular measure, it may sometimes be permitted, when the health is firm, to indulge in some deviations from rules of diet. The reason he gives for this indulgence is, that "it is the means of ena-

bling the stomach to increase its energies, when an occasion presents itself, without injuring the health."

I did not pass by this direction, which will be found in some other dietic writers, because I was ignorant of it, but because I doubted its utility; nay, I feared it would neutralize nearly all I had said on the subject of diet; and the more I reflect on the subject, the more I find those doubts and fears strengthening. I do not deny that an occasional departure from the strict rules as to quantity, which dieting requires, if it be only moderate, may not only be sustained without perceptible injury to the healthy, but even be promotive of health: For it excites the organs of the body to more powerful action, and thus prevents the tendency, that sometimes exists, to stagnation; just in the same way as agreeable news, or the meeting of friends, promotes digestion, and indeed, every other function. Still, the following objections to the adoption of the rule above mentioned, have occurred to my mind, which I present for the consideration of the temperate and the candid.

In the first place, I doubt whether this rule will accomplish the object proposed without leading a man into gluttony. That object is to accustom the digestive organs to those unavoidable vicissitudes and situations in life, when exact rules cannot be followed. But to feast once in a year, or once in a month, will not be often enough to fortify those organs against the influence of excess in diet. In order to accomplish this object, the feasting must be so often as to become in a measure habitual; in other words, there must be a sort of habitual irregularity in the mode of living.

But in the second place, this would amount to an abandonment of every important rule as to diet. It would be saying to men, true, you ought to be temperate and regular in your diet; but then, as often as appetite solicits, you may feast, and forget your rules. For if you are not able to tell men how often they may indulge to excess, you leave them to do it as often as they feel the inclination. In other words, you virtually say to them, eat as much as you please, and when you please: and after giving them such a license, of what use is it to attempt to persuade them to adopt rules of diet?

Is it not to be feared, that a wish to live just as they pleased, that is, to indulge the appetite whenever strongly tempted, has, in many instances, led men to the adoption of this rule? In respect to Lord Bacon, the writer in the *Quarterly Register* admits, that "his practical exemplification of his rule, was sometimes beyond the sanction of reason." Now it strikes me, that his intemperance in eating was precisely such an exemplification of his rule as we might expect. For that rule was in fact an abandonment of all rule; and if a man adopting it, does not become a glutton, it will not be because his rules prevent him.

In the third place, I see no necessity for learning the stomach to digest a larger quantity of food than health and strength demand. For when will a man be placed in such circumstances that he will be compelled to feast, that is, to indulge to excess? He will often be so situated that he cannot obtain the kind of food which he prefers, nor so much, perhaps, as health and strength require: but when will he be obliged to overload? If never; then where is the necessity of learning the digestive powers to grapple with a feast?

I admit, however, that a man may so tie himself down to rules, as to the quantity and quality of his food, that he cannot well sustain those unavoidable irregularities to which he will be exposed. But in the fourth place, I conceive there are better means of fortifying the powers against these vicissitudes, than by occasional feasting. Surely, feast-

ing will not prepare him so well for 'fasting,' nor for 'watching,' nor for 'running' as strict temperance will do. And let any man do his best to adhere to a certain quantity of food, I do not believe that one in ten can so regulate this matter, that he will not vary as much in the amount of his food, as any circumstances in life will compel him to vary. So that it seems, to me there is no need to caution men "to avoid too scrupulous a regularity?" For let them aim at as great an exactness as they please, they will find that too scrupulous a regularity will not be practised. And as to variety in food, it is very easy for a man, without 'feasting,' to indulge himself to as great an extent as he wishes, consistently with very rigid rules of diet: for he can use a different variety every day, and even at every meal, if he pleases. And it would probably be better for most men, when in health, to be but little solicitous about employing this or that species of food; and even to "eat what is set before him, asking no questions:" remembering only, that the more concentrated the nourishment, and indigestible the quality, the less should be the quantity. And even the invalid would probably do better to leave at home his "dyspepsia bread," and "mutton chops," instead of carrying them abroad in his pocket.

I apprehend that a needless fear exists as to the bad effects of scrupulous regularity in diet. The writer in the Register appears to have been unfortunate in one of the examples which he selected to show the danger of this dietetic exactness. He says, "when the philanthropist Howard was in such a state that the least deviation from his rules of living, was a disease, he was in a state far too artificial for this variable world." Most certainly he was: but it so happens that this took place before Howard had adopted any rules of temperance at all. True, he lived by rule: but it consisted in using as much stimulating food and drink as he could force down, and then the functions of life were galled on by sweetmeats and cordials; and exposure to the open air was carefully avoided. In short, it was a scrupulous regularity in intemperance and sloth. But as soon as he practised scrupulous regularity in temperance, he became capable of sustaining the greatest vicissitudes and exposures without injury.

As to the case of Cornaro, adduced by the same writer, it seems to me that no man, at the age of 75, could, with impunity, add a sixth part to his daily allowance of food and wine.

My last objection to this rule of Lord Bacon—at least to that part of it which recommends occasional feasting, is, that the chief reason for its adoption will justify an occasional excess in the use of wine or ardent spirit. Feasting promotes the health, (if it promotes it at all,) by stimulating the powers of life, and preventing stagnation: and an occasional excess in wine or ardent spirit will operate in the same way: and hence the reason, probably, why *periodical* drunkards live so much longer than *habitual* ones. Accordingly, distinguished physicians in Europe have recommended to men, for health's sake, to indulge in the convivial frolic occasionally, and even to "learn to revel." But what Christian at this day, would not regard such a recommendation as extremely dangerous and reprehensible? Yet I do not see how any one, who recommends occasional feasting, can, with any effect, reprove the man who prefers a bottle of wine to a feast. I do not believe myself, that any man requires the stimulus, either of excessive eating, or drinking, to keep the wheels of life in as rapid motion as ought to be given them. Variety in food at different meals, social intercourse, and enthusiasm in some literary or other pursuit, will furnish, it seems to me, the requisite excitement. And if it be less boisterous, it will at least not so soon wear out the system.

These are my objections to the rule under consideration. If others think them of little weight, they can adopt the rule. But with my views, I cannot but enter a *caveat* against it.

Does attention to rules of diet produce dyspepsy?

The singular opinion has of late come to prevail to a considerable extent, that attention to diet will reduce a healthy man to a dyspeptic. "Accordingly we find," says a Reviewer, "almost without exception, that the man who constantly aims at directing his diet and regimen by fixed rules, is overwhelmed with dyspepsia." The origin of so strange a doctrine may be found in the fact, that very few men pay any attention to their diet until by this neglect, they have become dyspeptic: and when the fact is made known, those who are opposed to living by rule, impute the disorder to the man's abstemiousness. Whereas, abstemiousness, *begun in season*, would have saved him from dyspepsy. For what is it "constantly to aim at directing the diet and regimen by fixed rules," but another name for living temperately? Temperance, without fixed rules of diet and regimen, cannot have an existence; though a man may be temperate without being sensible that he is living by rule. And if there be any fact thoroughly established, it is, that temperance in diet is the best of all preservatives against every species of disease. Ask the ancient philosophers and early Christians, whether the direction of their diet and regimen by fixed rules overwhelmed them with dyspepsy? Ask Sir Isaac Newton, Cornaro, President Edwards, Howard, Hanway, or among physicians, ask Galen, Cheyne, and Boerhaave; and of those living, Johnson and Abernethy, the same question? I confess I should like to see an explication of the philosophy of this new doctrine. If, indeed, a man expects that after practising the rules of temperance for a while, he can resume at once his old habits with impunity, he will be mistaken. And if this is all that is meant by saying that attention to rules of diet and regimen produces dyspepsy, I admit the correctness of the sentiment. But certain it is, that living according to the strict rules of temperance, from our earliest years, will prevent dyspepsy; and it is admitted by all physicians, I believe, that the rigid observance of these rules will cure most cases of dyspepsy. How then can their observance be the cause of this malady? That would, indeed, be a most remarkable physiology, that could demonstrate the same means to be both a cause and a remedy of disease.



NOTE N. PAGE 101.

Further remarks upon the superiority of a vegetable diet, especially to the dyspeptic, and an expose of the French method of treating dyspepsy.

The opinion is evidently gaining ground among physicians and others, that a diet altogether vegetable, is far preferable to any other for the dyspeptic; nay, often indispensable to his recovery. The recent able work of Dr. Avery, entitled the *Dyspeptic's Monitor*, takes more decided ground on this subject, than any other, I believe, that has appeared in this country. But I apprehend it is tenable ground, and the sooner invalids get upon it, the better. He recommends strongly a vegetable diet to other classes also.

"But it is not the hard laborer, or man engaged in fatiguing bodily employment, that I advise to abstain from meat; they seldom suffer from indigestion. It is the student or professional man, the shop keeper, the merchant, whose occupations are principally mental, and the female, who passes a large portion of her life within doors, who are better without it than with it. If they taste it at all, it should be during the cold season of the year, and then very sparingly; but in the warm months they should avoid it upon the same principles that they do strong beer, and live upon bread, light vegetables, ripe fruit, milk, &c. Were this plan to be generally adopted, we should have much fewer cases of sick headache, bilious attacks, with fever, cholera morbus, dysentery, and many other diseases that might be mentioned."

"In thus urging the comparatively feeble and inactive to abstain from animal food altogether, particularly in summer, I am far from believing that a very small quantity once a day cannot be taken without decided injury. But the danger is, if they taste it at all, they will take too much. It contains too much nutriment in too condensed a form, and the risk of overcharging the enfeebled system is so great, that total abstinence from it is the safest course."

"Should it be too great a sacrifice for the gentleman to give up his nutritious food, let him turn ploughman, and then he may eat pork and beef three times a day if he please." Page 121.

As to invalids, particularly dyspeptics, Dr. Avery is decided in urging their adoption of a vegetable diet altogether.

"It is very desirable," says he, "that people, as it respects themselves, should be undeceived on the subject of animal food, though it would be directly against the pecuniary interests of the medical profession; for it will be readily admitted by every intelligent physician, that an immense proportion of his business arises from the effects of too hearty food." Page 72.

"Another popular notion is, that feeble delicate persons require very nourishing food, such as beef, rich soups, jellies, &c. in order to give them strength—than which there cannot be a greater error. Their system may be compared to that of an infant which requires only the lightest and simplest food, possessing a great share of irritability, (which is generally connected with weakness,) and easily excited to unhealthy action by any undue stimulus. But nothing will be more difficult than to convince such persons that they do not need *at least a little* animal food, or to persuade them to adopt the simple diet most suitable for them. They will often admit that wine and porter disagree with them; because their effects are so immediate that they cannot mistake them; but they cannot understand how rich food can have exactly the same effect, to a certain extent, as wine and porter, and that if the one is hurtful, the other must be." Page 71.

Animal food has been thought necessary for invalids much troubled with acidity. But Dr. Avery found by his own experience, that the most marked improvement resulted from the use of bread and milk. "I then lived," says he, "entirely on bread, milk, and rice, for two or three months, when the symptoms of acidity vanished."

"Much subsequent experience, in the case of others, has confirmed the opinion that meat is injurious. It is not from the trial of any particular diet, for a day or two, that any correct inferences can be drawn, particularly in the complaint now under consideration; but it is only by steadily adhering to one course for weeks or months, that we may be enabled to come at just conclusions." Page 93.

Dr. Avery recommends as a substitute for meats, that "the farinaceous articles, including the different bread stuffs, most kinds of vegetables and fruits of easy digestion, milk, butter, and eggs, should comprise the bill of fare." He proposes to the dyspeptic who hesitates to adopt his plan, the following fair and easy experiment. "Now let the dyspeptic put these articles [bread and milk] to the test of experience, notwithstanding he may fancy that tender beef sits better on his stomach than any thing else. Wine also, for a short time, imparts a pleasant sensation. Let him taste nothing for ten days but the tenderest meat and bread, and let his drink be water; for the next ten days let him taste nothing but bread and milk. During both experiments he shall observe strict moderation in eating, and his exercise shall be the same, and he will then be able to form some idea which diet agrees with him best."

Dr. Avery's personal experience, as given in the Preface to his book, is worthy the serious consideration of every nervous invalid. "In consequence of repeated attacks of intermittent fever," says he, "and the great fatigue, irregular diet, and want of rest, inseparable from an extensive country practice, the author was for several years subject to a great variety of distressing symptoms occasioned by indigestion. As may be supposed, he consulted the best treatises on the subject, and took almost every medicine recommended by them, but all without essential benefit. At last, fully convinced of the entire inefficiency of medicine without a suitable regimen, which his professional duties rendered impracticable, and anxious to get rid of the depression of spirits connected with his complaint, he relinquished business and embarked for Europe. He visited a large part of great Britain and Ireland, resided some time in France, and travelled in Switzerland, Italy, and Sicily. During this time he enjoyed perfect health; but as may be imagined, did not forget his former maladies: on the contrary he spared no pains in examining the peculiarities of diet and habits of the people of the countries he visited, and the greater or less prevalence of indigestion among them; in a word, collecting all the information on the subject in his power. On his return home, he was soon visited by his old enemy, which convinced him that the usual American mode of living would in a short time place him where he was when he left it, and that though he had acquired by travelling an exemption from his complaints, he had not altogether recovered the youthful tone of his stomach. A little admonition was sufficient: he at once regulated his mode of living upon principles which will be laid down in the course of this work, and has ever since enjoyed a degree of health which he believes is surpassed by few, if equalled by many professional men."

"As a general rule," says the *Journal of Health*, "it will be found that those who make use of a diet consisting chiefly of vegetable matter, have a manifest advantage in looks, strength, and spirits over those who partake largely of animal food: they are remarkable for the firm, healthy plumpness of their muscles, and the transparency of their skins. This assertion, though at variance with popular opinion, is amply supported by experience."—Vol. 1 p. 217.

Extracts from the writings of Dr. Lambe.

I have met with no writer, who has more ably vindicated the exclusive use of a vegetable diet—especially in chronic complaints—than Dr. William Lambe; Fellow of the Royal College of Physicians, London; in his work entitled, "Additional Reports on the effects of a peculiar

Regimen in cases &c." A few extracts follow.

"It seems certain that it (the use of meat,) predisposes to disease, and even of those kinds, the immediate origin of which may be traced to other causes." (p. 92.)

"There can be no doubt that animal food is unfavorable to the intellectual power—so that it has been not improperly said of the vegetable feeders, that with them it is morning all the day long." (p. 147.)

"I see it is asked in a tone of triumph, whether it is possible that the species of food, which has formed a Fox and a Pitt, can be unfavorable to the production of talent. Why did not the writer who used this argument, (*Rees' Cyc. Article Man*), carry it to its full extent; and prove that a plentiful use of the bottle does not injure the intellect?" (p. 149.)

"Life is prolonged about one tenth by a vegetable diet, in incurable diseases." (p. 105.)

"Dr. Barwick tells us, in the life of his brother, who in the late civil wars had for many years been confined in a low room in the tower, during the usurpation; that at the time of his going in he was under a phthisis, atrophy, and dycasy, and lived on bread and water only, several years there; and yet came out at the restoration, sleek, plump, and gay." (p. 96: *quoted from Cheyne*.)

"Rammazzini has recorded the history of a man, who lived in prison nineteen years, upon bread and water only; and lived afterwards healthy, and free from the gout, from which he had before been a great sufferer." (p. 96.)

The noble Francis Pechi, a man of 50, and much afflicted with the gout, lay twenty years in prison, and when released, "to the astonishment of all the inhabitants of Vercelli, preserved like Lazarus from the tomb, he walked through the city with his sword by his side, without stiffness of his joints, without the aid of a stick. He thus escaped all the miseries of the gout by means of a slender diet, &c. In diet, therefore, is the medicine." (p. 97: *quoted from Schenk's Collections*.)

From Hufeland's Art of Prolonging Life.

"Instances of the greatest age are to be found among men, who from their youth, lived principally on vegetables, and who perhaps never ate flesh." (p. 169.)

Dietetic habits of the Scholars of Continental Europe.

In the first number of a very valuable and able work, the Biblical Repository, just published at Andover, [Jan. 1831,] Professor Robinson, the Editor, has given us a note concerning the habits of European and particularly German scholars; which must be considered as extremely valuable, from the opportunities he has enjoyed for observation. He says that the opinion that any of them study 16 or 17 hours a day, is an exaggeration. Still they study hard and take comparatively but little exercise; yet are far less troubled with dyspeptic complaints than students in this country. This he thinks "cannot be set down to the score of diet:" for "they love their glass of wine," "drink coffee twice a day," and "German scholars love a warm supper before going to bed." The following statements, however, in respect to their dietetic habits, may in part explain the difference: especially if we recollect that "there, scholars are trained to study from childhood; and do not as is often the case here, after a youth of labor and habits of great activity, change at once and adopt a sedentary life."

"In respect to the article of food, there are three things which strike an American, and may probably have some influence in regard to complaints of the stomach, viz. that the inhabitants of the continent eat, as a general rule, less meat than we do; that in both the German and French style of cookery, the food of all kinds is more thoroughly done than with us; and that the continental custom of serving the dishes in succession at meals, instead of placing all on the table at once, obliges them to eat much more slowly than we are accustomed to do. A dinner or supper table is there a place of animated conversation; which of course occasions many interruptions, and affords opportunities for the appetite to become satisfied, before the stomach is overloaded."

Experience of Mr. Owen.

The following is said to be from the pen of Robert Owen; and deserves more attention, than all his experiments at New Harmony and elsewhere, upon the "Social System."

"Last autumn and winter, I was much confined by my editorial and other sedentary duties, and I found my health beginning to suffer, although my manner of living then was what is usually called very plain. I used animal food only once a day, and then in small quantity; ate coffee and bread only for breakfast, and tea and bread only for supper; drank neither spirits, wines, nor fermented liquors of any kind, (which indeed, I have never used at any period of my life,) and was considered by my acquaintances as an abstemious liver.

"Still, I found the incipient symptoms of dyspepsy coming on, in consequence, probably, of exerting the mind too much and the body too little. Had I been able to obtain a release from my desk, I doubt not they would soon have disappeared; for at every period of my life, when I could spend half the day in the open air, I have enjoyed excellent health. But this was now impossible. So I determined to try another plan. I gave up at once the use of tea, coffee, and animal food: used bread and butter, with milk and water for breakfast, the same for supper; and either bread and boiled eggs, or hard biscuit and boiled rice and milk for dinner.

"To this diet I have now adhered for four months; and, without any cessation of sedentary employment, I have completely regained my health. I found no diminution of strength or spirits from the change, but rather the contrary; and even though I might return to my former regimen with impunity, I have no desire to do so. I have lost all craving for animal food, and can relish my breakfast quite as well, though it does not come from China or the West Indies.

"I have stated an insulated fact, and do not intend to generalize from it. Let it be taken for what it is worth.

"My food, I think, costs me about ten or twelve cents a day. The Roman, who dined on beans, asked the ambassador who was sent to tamper with his patriotism, whether gold and silver were bribes to him who could enjoy such a meal and desire no better."

French writers on dyspepsy and hygiene.

Since the first edition of this work was published, I have had an opportunity to examine some French works on Hygiene, and the nature of dyspeptic and nervous complaints, with their remedies; and I have thought it would be acceptable to present a short account of the most approved treatment of these maladies in France; particularly as it agrees essentially with the course pointed out in this note.

French views of the nature of dyspepsy, &c.

It will be necessary to premise, that many of the French writers describe the most usual cases of this disorder under the name of *chronic gastritis*, and *enteritis*: the first of which terms, is used by English writers, to designate a slow inflammation of the stomach; and the second, an inflammation of the intestines. But says Dr. Londe, "it is very rare that weakness of digestion does not result from chronic gastritis:"* Says another physician, "he whose digestion is difficult, although his appetite be good enough, or even greater than common; who experiences burning sensations in the region of the stomach; retchings, eructations, and flatulency; who perceives his face to be flushed, or who complains of bad feelings in his head, two or three hours after his meals, who then experiences pains, more or less poignant, at the pit of the stomach and under the false ribs of one side or the other—places which we call the *hypochondrias*; who speaks of an internal heat, a sense of fatigue, and also of a slow febrile movement, is attacked with the chronic gastritis. I will say more; almost all those who digest with difficulty; whose stomach, although very energetic, becomes capricious, and can bear only certain kinds of aliment; those who are obliged to think continually of their stomach; those who cannot sustain hunger, contrary to their habit, without severe pains; those who are obliged to go abroad and to drink, for accomplishing their digestion; those who pass bad nights with unpleasant dreams, and awake with a bad taste in the mouth, their limbs fatigued, and the head heavy; almost all these individuals, I venture to repeat, are attacked with a chronic gastritis."†

"He who perceives a burning sensation in the region of the umbilic, or a constant pain, more or less sharp, in one of the hypochondrias, extending sometimes to the shoulders; who is sensible of a slight dull colic, an uneasiness, or even only an inconvenient itching, or a species of stinging, sometimes in one part of the belly and sometimes in another; who is tormented with wind, which distends grievously his intestines, and is not driven out but with difficulty; who is habitually constipated, but who evacuates, sometimes by a species of diarrhœa, preceded by long and hard griping pains, a concrete or diffuent slimy matter, like a variety of membrane; he is attacked by a slow inflammation of the small intestines, or the *intestines grêles*, a malady which we call *chronic enteritis*. If the appetite remains good, and the first part of digestion is performed without pain, the malady is simple; if the symptoms of *chronic gastritis*, are associated with those of *enteritis*, the two are associated together—the one produces the other, &c.‡

At the commencement, this writer supposes that these complaints amount to nothing more than an irritation of the nerves of the stomach and intestines: but if neglected, the irritation proceeds to inflammation. Hypochondria, he says, is "nothing more than a chronic gastrointestinal inflammation in an individual, whose brain and nerves are very irritable."§ Of hysteria, he says, "it is always one organ irritated that troubles the others: *Ici, c'est l'uterus*."¶ These various irritations and inflammations acting on the nervous system direct-

* Noreaux *Elémens D'Hygiène, Deuxième Partie*, p. 81.

† Le Catechisme De la Médecine Physiologique, p. 107. Paris, 1824.

‡ Le Catechisme, &c. p. 109. § p. 228. ¶ p. 234.

ly and by sympathy, produce a great variety of nervous affections, which at first are but symptoms, but at length become real diseases.*

This statement of the French views of the nature of these complaints, will enable any one to see more clearly the ground of the treatment which has been adopted by some of the ablest of their physicians, particularly by M. Broussais and his disciples. The following extract gives a summary view of that treatment in most cases. (See also, *Histoire des Phlegmasies, Par F. J. V. Broussais; Tome 2, p. 246*)

"To him who has the chronic gastritis, we prescribe leeches in the region of the stomach, water or refreshing *plisan* (a decoction of barley with other ingredients) for drink. We carefully avoid all those medicines called *stomachics, tonics, digestives, and corroborants. We deprive the individual of aliments, during a longer or shorter period, if there is any fever, or the digestion is painful, or there is any vomiting. Then we seek to restore his strength, without exasperating the inflammation, by the mildest aliments; such as milk, the lightest farinaceous articles, tender vegetables, and the white meats; and we bring him back by degrees to his habitual diet.*"—*Le Catechisme, &c. p. 115.*

"The treatment of the inflammations of the *intestines grêles*, does not differ from that of the inflammations of the stomach. In the one case, as in the other, a perseverance of many years is sometimes necessary. For these complaints are liable to revive, whenever a person returns too soon to irritating aliments, such as mutton, beef, game, pastry, salted provisions, rich sauces, every kind of spiced dishes, or fermented liquors. Invalids of this character should be encouraged by the assurance that perseverance will overcome all obstacles. Having accustomed themselves to a mild diet, they can bear it well. They will find in it nourish-

* Similar views of dyspepsy are given by a late writer in the *Encyclopedia Americana*; Article, *Dyspepsia*.

"The sub-acute and chronic forms of gastric irritation and inflammation," says he, "the signs of which have only of late been fully appreciated, are the disorders that, in seven or eight cases out of ten, are termed dyspepsia."

"The preceding form a first class of dyspeptic diseases, which, depending entirely on the stomach, may be termed *gastric dyspepsia*."

"A second class of dyspeptic diseases is connected with the duodenum and its functions.—It is more especially the chronic irritation of the duodenum, that passes for dyspepsia."

"A third class of dyspeptic diseases, depend on the nervous organs, which furnish nerves to the digestive viscera."

Dr. Avery's division of dyspepsy into three species, in his "*Dyspeptic's Monitor*," is founded essentially on the same principles.

"The first species," says he, "is in a great measure confined to the stomach, and marked by symptoms denoting weakness of that organ, often existing without any material derangement of the liver or bowels. In the second, there is a predominance of symptoms, termed bilious, with more or less derangement of the stomach and bowels. Both these species are commonly called indigestion, dyspepsia, stomach and liver complaints, &c. The third is marked by symptoms indicating a morbid sensibility or irritability of the inner surface of the stomach and bowels. Under this species may be placed melancholy, hypochondriasis, and a long catalogue of complaints termed nervous.—[p. 18, *Introduction*.

These views of the French and American writers, it seems to me, throw more light on the nature of dyspepsy, than all that has been written in England, if we except the works of Dr. J. Johnson,

ment enough to preserve their fulness of muscle : for the farinaceous substances, such as bread, rice, vermicelli,* grout,† tapioca,‡ sago,§ salep,¶ and the white meats, such as fowl, veal, lamb, and fish, contain a great quantity of nutritive matter."—p. 123.

As to drink, this writer says, that sometimes weak lemonade may be used ; sometimes sweetened water ; sometimes an infusion of liquorice, &c. "Pure water is sometimes the best of all remedies. In chronic gastritis, where there is great sensibility, it is found best to restrict the sick to water alone, &c." (p. 126.)

As to medicines, he says, "persons attacked with chronic gastritis, or enteritis, should abstain from all medicine, &c." (p. 125.)

Distinction between the white and dark colored Meats.

It will have been noticed that the French writers distinguish between the white meats and others ; and recommend only the former to invalids. The ground of this distinction is, that the dark meats contain a peculiar animal principle, called *Osmazome*, which, is described as "brown, reddish, aromatic, and sapid, giving to both its taste and color."|| The effects of meats, containing this principle, upon the system, are thus stated by Dr. Londe : "During digestion, the aliment containing fibrine, accelerates the circulation, and increases the animal heat : in a word, this food, when it contains *osmazome*, is of all aliments the most stimulating and nourishing."§ The meats containing *osmazome* in the greatest quantity, are beef, mutton, pork, venison, the flesh of the hare and rabbit, of old fowls, guinea hen, peacock, pigeon, duck, goose, quail, partridge, &c. Most of the white meats have been already mentioned. Few animals when young contain *osmazome* : hence veal, lamb, chicken, &c. are arranged among the white meats ; while beef, mutton, old fowl, &c. are put among the dark ones. The objection to the use of the meats containing *osmazome* by invalids, is, that they are too stimulating to the digestive organs, and thus increase the irritation or inflammation already existing in the system.

Effects of medicines on dyspepsy.

The effects of drastic medicines, tonics and stimulating food and drink, in most cases of dyspepsy, are well described in the Catechism of Physiological Medicine, from which I have already quoted. The dialogue is between a *Savan*, or learned man, and a young physician.

Physician. "Many live habitually with a gastritis, which they keep alive by pills, or purgative salts ; and in spite of their sobriety, their privation is not great enough, nor continued long enough, to effect the destruction of that irritation."

Le Savan. That may be : But would you have a man die with hunger, for fear of producing too much blood ?

Physician. No, Sir ; but I would have him devote a period of time to the curing of any irritation by which he is attacked." p. 92.

* A composition of flour, eggs, sugar, and saffron, used in soups and pottages.

† Coarse meal.

‡ Substances similar to arrow root and starch, obtained from different vegetables and highly nutritious.

|| *Elémens D'Hygiène, Deuxième Partie* p. 33.

§ Same Work, p. 23.

"Purgatives irritate the stomach and intestines, as tobacco irritates the nostrils and mouth. Have you observed that a man has less need to spit and blow his nose, who uses tobacco in the form of snuff, or for smoking? On the contrary, does not the more frequent use of tobacco increase the frequency of these operations? well, the same thing takes place in the digestive canal. *The more it is purged, the more it needs to be purged*; and the stimulus of the purgative becomes at length as necessary as that of the tobacco. This goes on very well so long as the digestive organs are not very feeble; but if any part becomes inflamed, the purgative becomes as injurious as tobacco in inflammations of the mouth and nose!" (p. 95.)

Reasons why stimulating food and drinks, afford a transient relief in dyspepsy.

"In the commencement of chronic irritations of the stomach, which have not risen to inflammation, the stomach has not lost its power of being agreeably affected by aliments and tonics; and of performing the work of digestion. It is not enough heated to become painful, but at the end of the digestion, two or three hours after the repast. After that operation, it becomes cool. And if at that time stimulants are given, such as the strong wines, or juicy meats, the stomach receives them well, and the impression produced in it, diminishes for a short time its suffering; the pains which it had been sensible of, are concealed for some time, by a feeling of strength and comfort: but at the end of this period, the irritation having been increased, the stomach refuses all aliments, the pains augment, and the invalid begins to sink. Emetics, purgatives, and mineral waters also, suspend for a time, the suffering of the stomach, by directly evacuating, or driving to the skin, those humors, which the irritation had accumulated in its interior; but they act like the tonics; augmenting in the end that irritation which they had alleviated. They raise it to the degree of inflammation, and the digestion is altogether arrested." (p. 120.)

Example illustrative of the French method of treating the Dyspepsy.

I feel myself deeply indebted to a gentleman of the first respectability in our country, for furnishing the following statement of his own experience as a dyspeptic. It affords a good illustration of the manner in which eminent French physicians manage dyspeptic complaints; and cannot fail, I think, to open the eyes of many a dyspeptic invalid, who is now pursuing the destructive course of stimulating food and drink, and thus aggravating his complaints; and it may point out to him the true road to restoration and comfort. The hope that such may be the effect, has been the principal inducement with this gentleman to furnish the statement. He can, indeed, very sincerely and appropriately adopt the sentiment, *Haud ignarus mali, miseris succurrere disco*.

MY DEAR SIR,

I entered upon the duties of life before my frame had attained its vigor, or my mind its maturity, with a constitution formed at the school bench, and never invigorated by physical labor, or inured to exposure. You will not be surprised then, that I should speedily become the victim of diseases of the digestive organs.

Thirteen years have now elapsed since I became a confirmed dyspeptic. During the early period of my disease, the course adopted was to

attend to *symptoms*; and emetics and cathartics, opiates, and stimulants, tonics and condiments, were alternately employed to palliate the immediate evils and enable me to continue the destructive course of excessive intellectual effort, in which I was engaged. After employing almost every variety of these remedies in vain, with only a temporary relief; nature's medicines, as they are termed—the various species of the mineral waters—were next resorted to; which not only disappointed my hopes in the same manner, but also entailed upon me other complaints for years. A mild species of *dyspeptic pills* was then employed. The *blue pill* was the last of this long list of remedies. Each of these in its turn, seemed to operate like a magician's charm, dissipating every cloud from the mind, and every pain from the body; but each left the system more prostrated, and the digestive organs more diseased than it found them. Journeys were then recommended; but with the same partial and temporary effect. Horse-back exercise was then pronounced by all practical men, a panacea for stomach disease, and I not only employed it daily, but occasionally took long journeys. The effect was equally magical, but equally transient, with that of preceding remedies. I sometimes returned with so much increase of flesh that my friends scarcely knew me; and yet, in a few weeks, was more prostrated than before; although I continued journeying as much as a regular course of occupations would permit. I became at length so much reduced as to be incapable of intellectual labor, and a voyage at sea seemed the only resort.

The effects of an entire removal from the ordinary objects of thought and sources of responsibility which attends a life at sea: the constant but usually gentle exercise, produced by the motion of the ship, united with the effects of sea sickness, produced a calm and quiescent state of the organs and nerves; and enabled, as I was, to commit the result of the voyage to that Providence who rules the waves, it was not counteracted by any anxiety on this point. The effects of this repose in renewing the tone and vigor of body and mind, were obvious, but by no means so rapid as those produced by means formerly employed; it resembled the restoration produced by sleep, when compared with the excitement and energy arising from a stimulating draught. A voyage of several months, renewed in some degree the sensations of health, and enabled me to resume labors which again prostrated me, and obliged me to undertake a voyage to Europe.

The voyage and the entire change of scene renewed the process of restoration, which was again interrupted by a series of labors, and by journeys, with their usual train of unavoidable excitements and irregularities in sleep, diet, and hours. I had previously found that the general prescription of company and amusement, to an invalid, was to be taken with many grains of allowance; that, when the nervous system had become irritable, this additional excitement was not the means of soothing it;—that when it was exhausted with intellectual effort, it could not be refreshed by renewing that effort under the strong stimulus of agreeable society, or interesting objects of curiosity. Who would think of relieving his eyes, when suffering from application, by going into a brilliantly lighted room?

I became fully established in my convictions on this subject, by finding that in my own case, a day or two of great exhaustion, would follow each of these periods of delightful excitement, produced by the interesting objects and men and scenes of the old world; and by observing that more than one invalid traveller, whose remaining vigor enabled

him to sustain this course of nervous stimulants much longer, sinking lower in proportion to his elevation, in the same manner as those who employed other artificial stimulants, as a means of daily support. I found, also, that two or three days' entire repose, to which an invalid is sometimes forced, amidst scenes and objects of no interest, were followed by refreshment like that of sleep. Conviction, therefore, united with necessity in leading me to limit, much more than is usual, my hours of amusement as well as of exertion, and I endeavored to follow, as far as possible, the counsel of an Edinburgh physician—to break off from any book or any occupation, as soon as it began to excite *deep interest*; and to deny myself the view of any object, however attractive, if my strength had been previously tasked to a proper degree. I found too that it was indispensable to limit my bodily exertion, in order to avoid the necessity of tasking the stomach with the digestion of that great amount of food, which a traveller often feels himself compelled to take in order to sustain his extraordinary exertions, and which so often counteracts all the salutary effects of a change of climate and scene. I found too that my stomach required a longer period of rest than my limbs, and I found obvious benefits in taking only two meals a day.

In short, I became satisfied that the debility and exhaustion of my whole system, and each particular portion, could be effectually relieved only by *repose*; and that the elevation thus produced, was not succeeded by that corresponding depression which follows the use of *artificial stimulation*, whether of the stomach, the nerves, or the intellect. With this conviction, and after having experienced the delightful immediate effect, and the ultimate depressing influence of wines and nervous stimulants, in the countries where they are found in the greatest perfection, and also of a new series of medicines, I was slowly led to the persuasion that a system which required to be sustained in this manner, could not endure long, and that the only effectual relief must be to accustom it to subsist upon simple aliment. I now began, as rapidly as the vacillating purposes and feelings of a dyspeptic allowed, to abandon the use of medicines and stimulants, and to wait for the restoration of the system from its occasional paroxysms of suffering, by time and repose. The same experience led me to give up all condiments except salt, and to use this only in very moderate quantities. Still I was influenced by my previous opinions and medical advice, to eat some of the most stimulating kinds of food, as beef, mutton, and the brown meats, and to avoid as much as possible enfeebling their effect upon the stomach by the use of less solid food and drinks. Under this regimen, I experienced far less suffering than formerly, and the periods of gradual elevation were longer, but they were still interrupted, by violent attacks of disease which produced complete prostration, and there was no evidence of any permanent or radical cure.

A long journey to Paris at an inclement season of the year, produced one of the most violent of those attacks which I had experienced. After recovering from its worst immediate effects, having lost all confidence in the remedies of the English system of medicine, and having been led to despise the inefficient practice of the French physicians, and to dread their principles of starvation, as I heard them described, I did not venture for some time to employ either. I endeavored to restore my system by repose of body and mind, combining it most inconsistently with the use of the most concentrated and stimulating animal food, which had formerly been recommended in order to repair my lost vigor. I thus tasked to the utmost, and spurred on to the highest degree of action, those organs which were most exhausted, and refused

them as much as possible, the relief which might have been afforded by soothing and diluting drinks. This course constantly reduced my physical vigor, and impaired my mental and moral energy, to a degree which I never before experienced. To walk a short distance, or ascend a flight of stairs, or converse a short time with a friend, completely exhausted me.

My days were passed in gloom and suffering, and my nights in restless tossing. To fix my mind upon a single subject, or pursue a train of thought, was impossible; and a slight cause of agitation would unman me. In these circumstances I found that I could no longer rely upon my own judgment, and I gave myself up to a French physician, after exacting a promise from a medical student of my acquaintance, that he would not leave me to be the victim of *starvation*, which I so much dreaded from their practice.

I placed myself at once in one of their private hospitals, so common in Paris, and which ought to exist in every country, where an invalid may find the ordinary comforts of a boarding house, combined with every convenience for bathing and exercise, provided with nurses, and under the immediate superintendence of a physician.

The gentleman to whose care I committed myself, began by explaining to me the principles upon which his practice would be founded. He regarded my disease as an irritation of the digestive organs. He argued that every active remedy, and all stimulating food; and also, by sympathetic influence, every effort of body and mind, which was beyond the powers of my enfeebled system, must increase this irritation, although the apparent and immediate effects might be agreeable. On this principle he deemed it necessary for me to abandon all animal food, all medicine, and every thing which could irritate the stomach; and to substitute such nourishment as was of a soothing and emollient character. He thought it indispensable, still further, to use the smallest quantity of this species of food which was sufficient to sustain the system, and thus give as much repose as possible to the irritated and exhausted organs of digestion. It was also deemed indispensable to limit the amount of bodily and mental effort by the *actual degree of strength*, instead of rousing the system to *artificial rigor*, by means of stimulants.

In correspondence with these views, my daily allowance of food was reduced to two bowls of arrow-root, prepared with water, (in which no seasoning was permitted, except loaf sugar, and a very small quantity of salt,) and four ounces of the finest and lightest stale wheat bread.

The only animal nourishment given me was chicken tea, which was used as drink in the intervals of my repasts. During a visit to the south of France and Italy, I found great relief from the use of olive oil, when I could obtain it in its purest and best state, and I now employed it freely with obvious advantage. I ought to observe here, that oil of the quality generally found in the United States, impaired by age, was pernicious to me. I was advised to use, as often as convenient, *small quantities* of drinks composed of syrup of gum arabic and other mucilaginous articles, in order to sooth the irritation of the stomach, produced by the process of digestion. The only *medication* employed was *external*, by means of *hot sulphureous baths* every other day, continued from three quarters of an hour to an hour—*jets* or "*douches*" of *steam*, or *hot water*, upon the stomach and bowels on the alternate days—and a cataplasm of *flax seed* or *bread*, applied to the bowels every night. The two latter remedies were designed to counteract the peculiar debility of the bowels, which formed one of the most obstinate and debilitating symptoms of my disease. It will of course be understood, that coffee and

tea, spices, condiments, and stimulants of every kind, were absolutely forbidden; and every species of food, besides those already mentioned. The immediate effect of this course of living, was habitual relief from the confusion of thought and unceasing despondence and gloom which had constantly attended me in the use of solid food. My mind was clear, though feeble, and my feelings were natural, though peculiarly excitable; and while compelled to keep my bed eighteen or twenty hours in twenty four, and to pass the greater part of the day in absolute solitude, in a land of strangers and in an asylum for the diseased, I experienced habitually a state of calmness which I had seldom known, and often had an elasticity of spirits which inclined me to sing with cheerfulness. In giving up the irritating articles of food, my stomach was relieved from that craving and sinking for want of additional supplies, which were previously incessant; and one source of constant bodily uneasiness and mental anxiety was thus removed. The cleanness of the tongue and sweetness of the mouth, which attended this mode of living, was a luxurious feeling in itself; and the insipid articles which formed my diet, were as agreeable to the palate as delicacies had been before. My bodily vigor was for a short period somewhat impaired; but within ten days, regular and easy digestion of this small quantity of food was obviously restoring that strength which had been impaired by the use of a full diet. The irregularities in which I sometimes indulged, showed me very clearly, that the fatigue of the stomach was far more exhausting than any other, and I never deprived the stomach of its prolonged repose without additional inconvenience; and the occasional trials which I made secretly of my former favourite remedies, to palliate the painful symptoms (which of course frequently recurred) established more fully their irritating and injurious influence; and obliged me to make confession to my physician and submit to a prescription of greater simplicity of diet than before, by way of atonement. Indeed, to one accustomed to the complex medication of our own system, it requires as great a sacrifice of prejudice and pride to submit to this simple mode of treatment, as it did for the Syrian to go and wash in the Jordan; and perhaps still more to overcome that undefinable apprehension, which an invalid will naturally have, that a disease so serious cannot yield to methods so entirely negative. It ought not to be omitted, that regular exercise, and, as far as possible, daily exposure to the air, was regarded as an indispensable part of the course of treatment: and that such means and such a degree of amusement, as would draw off the mind of the invalid from himself, without exciting it to any activity were, considered as equally important, although both the one and the other were often either unattainable or neglected. Notwithstanding many irregularities, and a constant course of anxiety and intellectual labor, to which I was unavoidably subjected, my abstemious diet constantly increased my strength, and gradually restored something of the aspect of health, to my complexion and countenance. My sleep became more natural, my feelings less susceptible, and my mind more vigorous, and my physicians hope, now became sanguine of my entire recovery.

At the end of three months my vigor was so far restored, that I was advised to commence a course of gymnastic exercises, under the immediate direction of a person who took care to adapt them to my strength. At first, it was necessary for me to go to the gymnasium, a distance of a mile and a half, in a carriage. In the course of a short time I was enabled to go and return on foot, and perform a course of graduated and varied exercises every other day, for an hour and a half, without excessive fatigue. At the end of a month, my strength, as measured by

the dynamometer, was increased to forty pounds, when applied to the act of drawing or pulling. At this time, fish, veal, and chickens were allowed me in small quantities, once in two days, and afterwards once a day; and vegetables were added as I could bear them. It was deemed advisable however, that I should seek a warmer climate for the winter, and the exposure connected with the journey produced a violent rheumatic affection. This compelled me to submit myself to the care of a physician, who pronounced my system to be in a new state, requiring a more invigorating diet. The result was a considerable increase of suffering and of flesh, and an uncertainty in my own mind with regard to my state, thus absolutely pronounced to be changed, which prevented my pursuing the course previously prescribed. I at length returned to it as far as circumstances would permit; and since that time, a period of three years, I have used animal food habitually only once a day, and not more than three or four days in a week. I have subsisted chiefly on farinaceous and vegetable food, with no condiments but sugar and salt; using water, or milk and water, and sugar and water, as drinks, to the entire exclusion of tea, coffee, and every vinous and alcoholic stimulant. I have also been accustomed to leave the stomach at rest from dinner until the next morning, unless I was called to some exertion in the evening. A series of journies, with the accidents and attacks of disease arising from them, and the real or supposed necessity of too much intellectual exertion, have alternately retarded or interrupted the improvement of my health: and perhaps not less, that painful sense of responsibility arising from a consciousness of my own inefficiency in regard to the duties of life, which is probably both a symptom and a cause of my malady. Still there has been a regular, though gradual process of restoration, both of body and mind; and when compared with my former state, I may consider myself as enjoying health. The constant suffering and incapacity for exertion, which attended the use of a full diet, are exchanged for a degree of physical enjoyment approaching that of health; with the power of moderate daily occupation, and an amount of bodily exertion, formerly beyond my power. The paroxysms of violent disease, which were formerly very frequent, now occur rarely. Instead of being constantly obliged to recur to medicines, I have not used them, in a single instance, for two years past. In place of the perpetual vacillation of spirits and hurry of feeling, and dependence on immediate stimuli, which attended my former mode of living, I enjoy, *when moderately employed*, a degree of uniformity of condition and calmness of mind, which I never before experienced. My sleep is habitually quiet, my bodily functions generally regular, and physical pain is rare. In short, I see full reason to believe, that could I but comply with those two simple precepts, '*Be temperate in ALL THINGS*,' '*Be anxious for NOTHING*,' there is no obstacle to my entire restoration; although it is obvious that a feeble system, impaired by ten years' disease can only attain by very slow degrees, the full vigor of health.

The course of diet which I have described, was far less rigorous than usual, in consequence of the state of exhaustion into which I had fallen. Some of my fellow patients, whose disease was more recent, or whose constitutions were less enfeebled, were treated in the following manner:

No medicine whatever was given, except in rare cases, of urgent necessity. Leeches were generally applied to the stomach and bowels, in order to diminish the local irritation, and the application repeated as

often as the symptoms indicated.* Cataplasms were also applied every night, and sulphureous or other baths employed every other day in most cases. The diet usually consisted at first of three bowls of arrow root, prepared with water, per day, without any bread or other solid nourishment. Water with mucilaginous syrup was the only drink allowed, and was recommended to be taken in small quantities, in the intervals of repasts. As soon as the irritation appeared to have subsided, and this quantity of food was digested without any unpleasant symptoms, if the appetite craved more, a small quantity of veal, or chicken soup, with bread, rice, or the more solid farinaceous food, was given. This was succeeded by moderate portions of milk, or vegetables, or fruit, or white meat, according to the constitution of the patient. In every instance, the invariable rule was, not to allow a change in the quality or quantity of food, until that actually used, was digested without inconvenience; and to retrace these steps as soon as the irritation was renewed. The passage to the use of the black meats was still more cautious and gradual, on account of the powerful stimulating character ascribed to the *osmazome*, which gives them their color. Veal soups were at first made, with a small addition of beef, which was gradually increased to one half, and two thirds; and it was not until the patient could use strong beef soup, made, as is usual in France, of lean meat, that he was allowed to use any of the black meats. I knew more than one instance, when this course, combined with exercise, produced relief in a few weeks—and one, in which the ordinary medication had left the patient in a state of bilious disease and hopeless despondency for months.



NOTE O. PAGE 102.

Farther remarks upon the number and time of meals.

Doct. Londe, in his *New Elements of Hygiene*, maintains, that whatever be the number of meals daily, they should be taken at such times that the first and last shall be equally distant from mid day. If only two are taken, and he thinks that aged people particularly, need but two, they should be equally distant from noon. If three are taken, the dinner should be at 12 o'clock, the breakfast at seven, and the supper at five; since in healthy persons, who do not eat too much, hunger returns in about five hours after the repast. Young people, especially infants, he thinks, may need four meals which should be arranged on the same principle.

Plan of meals in the French colleges.

A work has recently fallen into my hands, published in Paris in 1827, by Dr. Pavet De Courteille, entitled *Hygiene Des Colleges et Des Mai-*

*I may here state that I have known a case of inflammation of the bowels, produced by a fit of intemperance, in a dyspeptic, and attended with the most agonizing symptoms, which was relieved by the application of several hundred.—I have also known a violent attack of colic, for which the individual had usually adduced opiates and stimulants, entirely relieved by cataplasms often renewed, with the mere use of gruel and warm water.

sons D'Education. It contains a full developement of the plan pursued in the French colleges, in respect to location, diet, and regimen. These institutions, however, correspond more nearly to the gymnasia recently established in this country, than to our colleges. For a *Pensionnat*, or boarding house, is connected with each of them, and the proper age for boys to enter them, is considered by this writer, to be from nine to ten years. At so early an age, they are thought to require an afternoon collation, or *gouter*, besides three regular meals, "on account of their growth, and the rapid movements of their vital powers;" "all of the repasts, however, to be in that measure and moderation, which agree with temperance, one of the surest elements of health." (p. 48.)

"The breakfast, taken at all seasons about two hours after rising, very properly consists generally of dry bread; *which is wonderfully seasoned by a good appetite.* In the cold season, some youth are permitted to take a little milk porridge, or sweetened water, or chocolate; but never meat." Fruits are also permitted at the proper season. (p. 49.)

The dinner is taken four hours after breakfast; and is composed of soup or broth, with one or two dishes of meat and vegetables.

The collation, or afternoon luncheon, is composed of bread, with some kind of fruit.

The supper commonly consists of broth, vegetables, fruits, cheese, and in some instances, meat. "It should be lighter than the other repasts."

The drink is commonly water; sometimes beer and the light wines are allowed.

Dyspeptics should omit supper altogether.

I am more and more satisfied that in nearly every case of dyspepsy, a great advantage would result from omitting supper altogether. The great advantage of such a practice is, that thus the stomach has a much longer time to rest; and being the weakest part of the system, it needs more repose than the other organs. True, at first, appetite would plead loudly for the accustomed gratification: But habit will gradually overcome this unpleasant feeling; as many who have adopted the plan have experienced: the sleep would soon become less disturbed by dreams; and wakefulness, cheerfulness, and sweetness of temper, would succeed to melancholy and fretfulness; and the stomach would gradually recover its lost tone. A little milk and a cracker, might not, indeed, do much injury, if taken early in the evening; but the danger is that the dyspeptic will not be contented to stop with these, and therefore, it would be better for him, to confine himself to two meals in the day.

Nor do I believe, that even if the invalid do this, it will be necessary to adopt the plan of dining late. For I do not believe that there is one such, who delays his dinner till three or four o'clock, who will not eat twice as much as he ought; and this will be more injurious than to eat temperately at noon, and to take a light supper. "Suppers," says Rees' Cyclopaedia, article Diet, "at present are discouraged among the affluent; and excessive ones, such as have been in use among our ancestors, very probably with good reason. Or perhaps we should rather consider the meal of dinner to have been discarded, and an early supper substituted; a change, which, on the whole, is to be considered as detrimental, at least to invalids and persons of delicate habit. Two very moderate meals, at a suitable distance of time, would doubtless be digested with much more ease than one full meal, when the stomach has been debilitated by long fasting, and has suffered fatigue together with the body at large, from the exertions of a long day. So that, as

Dr. Fothergill has observed, "when people assure us that they eat no suppers, from observation I am led to suspect, that it would be better for them if they did, than to oppress nature with a cumbrous load that may be much more detrimental."

Even a healthy man need have no fears that he shall starve, or even suffer any inconvenience, if he gets into the habit of not eating a mouthful, from the time of dinner at twelve or one o'clock, till the next morning; much less then, has the invalid any reason to fear from such a course. But both will be in great danger of injury, if they suffer the time between breakfast and dinner to be extended much beyond five or six hours. If the appetite become good before bed time, it is a sign that the man will enjoy quiet and refreshing repose.* For sleep is nearly as effectual in satisfying hunger, as a full meal: and the reason why some persons cannot sleep till they have taken their luncheon, or even till they have risen from bed to do it, is, that they have got into a habit of indulging in too much, or too stimulating food; which has rendered the system alive to every exciting cause, and made the appetite morbid.



NOTE P. PAGE 112.

The dyspeptic must limit the amount of his food at each meal, before he begins to eat.

I fear I have not urged this point with the distinctness and earnestness that its importance demands. I am perfectly convinced that all the invalid's efforts for regulating his diet, will fail of any radical and curative effect, until he is willing, every time he sits down to a repast, to fix upon the precise quantity of food which he intends to eat; and either actually to collect the whole upon his plate, or to measure it off with his eye, and resolutely resist the temptation to partake of another mouthful. If he does not take this course, he will as certainly eat too much, as he eats at all: For in the first place, he cannot otherwise know how much he eats, and of course must depend upon his appetite to inform him when he has eaten enough; a course that is no safer for a dyspeptic invalid, than for a man to trust himself upon a high spirited horse without a bridle. In the second place, by allowing himself to eat a little and a little more, he takes the surest possible course to tempt his appetite, and to increase its ravenousness. He may feel little or no appetite when he commences his repast, but if he partakes of it bit by bit, that appetite will increase in a geometrical ratio as he eats, and he will infallibly indulge to excess; more particularly so, if he suffers himself to use a variety of dishes. The following is the direction of an able medical writer, often quoted in these notes.†

"The best plan is to eat slowly of the plainest dishes on the table, never indulging in variety, and for fear of eating too much of the sub-

* "The invalid who has been accustomed to more stimulation than the above scale affords, may pass some sleepless nights, and be often tempted to break the vile system of abstemiousness, which the doctor has prescribed. Let him, however, persevere. Sleep will come—and that too, of a more refreshing quality, &c."—*Dr. J. Johnson*,
 † *Dyspeptic's Monitor*, p. 102.

stantial kinds, as meat, to be helped to the quantity intended to be eaten at first; in this way it can be measured with the eye, and the danger of overloading the stomach diminished."

But after all, nothing is so hard as to persuade the dyspeptic invalid, actually to put these directions into practice. *He is unwilling to know how much he eats*: and especially is he ashamed that others, who sit at the table with him, should see the enormous quantity, which he, a poor feeble invalid, in his own estimation, and just ready to sink into the grave, is in the habit of eating. He knows that should he set apart any reasonable or moderate quantity, it would by no means satisfy him; and therefore, he prefers to get one portion out of sight before he takes another; and then tries to persuade himself that he has eaten only a moderate quantity. O, were his body transparent, so that he could see the strugglings and writhings of half suffocated nature, under the load which three times a day, he lays upon her, he would no longer wonder at his feebleness of health and incapacity for intellectual effort. Certain it is, that until he will take means to limit the quantity of his food at each meal, he will never be any thing else but an invalid, in body and mind. He may be very particular to avoid this and that article of food, and to take abundance of exercise, and to avoid study and care, but until he is persuaded to reduce and fix the amount of his food, he will remain an inefficient, wretched, and almost useless man.

Example for dyspeptics.

In this place, I am happy to have it in my power to introduce, from the private journal of one, who by rigid temperance has sustained a feeble constitution to the verge of three score and ten, those rules of diet which he "keeps before him" as his guide. Those in vigorous health may exclaim against the specific character of these rules; but the feeble invalid knows, that if such rules are not specific and exact, they are good for nothing; and if he can by observing them, obtain renovated health and comfort, little will he heed the ridicule of those, who are about as well qualified to judge of the matter, as the blind are of colors.

Regulæ mihi strictim observandæ, si VALETUDINE frui vellem.

1. NIHIL inter epulas edere—aut GUSTARE.
2. Habere præ me, DESIGNATA, cum incipio, (si fieri possit,) OMNIA quæ quoque tempore, edere liceat.
3. Edere LENTISSIME.
4. EA (eaque sola) edere, et in ea quantitate, quæ Experientia docet, et tempore edendi judico, mihi optima, et maxime propria, esse.—Ergo;
5. Nunquam edere incipere, donec VERE dicere possim—"hoc (vel Hæc) edere, et GENERE, et QUANTITATE, omnibus consideratis, mihi optimum esse nunc judico."
6. Nunquam edere plusquam tres uncias et dimidium, (aut plurimum, quatuor,) epulâ ullâ unâ.
7. Nunquam edere plusquam decem uncias, (aut plurimum, undecem) die ullo, in tres epulas, fere equales, divisas.

Regula Medicinatis.

Cum te ipsum parum ægrotum esse percipis, statim cibum tuum usitatum reduce, (cum simpliciore et parciori reddendo,) donec (ut sperare liceat) valetudo redierit.

"In estimating the quantity of food by weight, I take fine wheaten

bread for my standard ; and other things in proportion to the nutriment which I judge them to contain. A wine gill of rich milk, I consider equal to an ounce of bread, &c. I prefer bread made of wheat and rye ground together, and sifted through a coarse sieve, and should constantly use it, if it were not for the trouble it would give to my family. —The diet which best suits me, is, for breakfast, about $2\frac{1}{2}$ ounces of bread, toasted and broken into $1\frac{1}{2}$ gill of milk, more or less diluted ; for dinner, 2 ounces of bread, toasted and moistened with $\frac{1}{2}$ gill of milk and an equal quantity of water, and an egg, cooked in the manner I have mentioned, with no seasoning but salt ; and for my third meal, 1 gill of milk diluted, and 2 ounces of bread. I have sometimes made use of the following kind of food : Make a gruel of one quart of water and a teacupful of rye, (Indian, oat, rice, or barley) meal, with a little common salt, or phosphat of soda ; when sufficiently boiled, add 3 or 4 gills of milk ; after this, it should not boil, but when on the point of ebullition, remove it from the fire, and stir in one or two eggs previously beaten. When used, a little sugar and spice may be added. This may suffice for three meals.'—*Lentissime recipiendum.*"



NOTE Q. PAGE 116.

The proper diet when travelling—especially for invalids.

The opinion is almost universal among invalids, as well as those in health, that when upon a journey, even in a close carriage, they may eat voraciously, or at least give up the reins to appetite. Accordingly, dyspeptics, in a majority of cases, defeat the good effects of a journey, by indulging to excess ; and return home, discouraged, and possessed with the idea, that theirs is a hopeless case. But if they could only be persuaded to eat *less* upon a journey than when at home, they would generally return home rejoicing in the improvement of their health and spirits. From not a little personal experience, I can bear testimony to the correctness of the ground taken by the *Journal of Health*, opposed as it is, to the opinions and practices of the great mass of mankind.

"People, especially valetudinarians, must not imagine, as is so commonly done, that because they are travelling, they can eat and drink more than when they were at home. The reverse opinion is a correct one. The motion in travelling is of itself a stimulus, and hence less stimulating nourishment is then required than in a state of rest. There is hardly any advice more pernicious than that frequently given to those fatigued after a day's journey, to drink a glass of wine, or spirits and water, or the like, to recruit the strength, which can only be suitably renovated by sleep. Such a practice, of which a hearty supper forms part, is of itself competent to produce indigestion, feverishness, and disturbing dreams. The meals of an invalid traveller, or indeed of any person on the road, ought to be of light nutritive food, in moderate quantities, taken early in the morning, or after a ride of eight or ten miles, and early in the evening, after the journey is completed ; so that some time shall elapse between this last repast, which is both dinner and supper, and the hour for retiring to bed."

"Many are under the impression that the fatigues of travelling can be properly sustained only by a liberal allowance of the strongest food, with the addition of fermented, if not of distilled liquors."

"In cold climates, and in the winter season, a temperate amount of substantial food will undoubtedly be required by the traveller. Spirituous liquors are under no circumstances, either necessary or proper. A very simple and abstemious diet will be found on the other hand, the one best adapted to support the health and vigor of the traveller in warm climates, and during the heats of summer. On this point we have the experience of the judicious Burkhardt, who, describing his journey through the deserts of Arabia, uses the following language."*

"The provisions of my companions consisted only of flour; besides flour, I carried some butter and dried leben, (a kind of cheese) which when dissolved in water, forms not only a refreshing beverage, but is much recommended, as a preservative of health, when travelling in summer. These were our only provisions. During the journey we did not sup till after sunset, and we breakfasted in the morning upon a piece of dry bread, which we baked in the ashes the preceding evening, without either salt or leaven. The frugality of these Bedouins (Arabs of the desert) is indeed without example. My companions, who walked at least five hours every day, supported themselves for four-and-twenty hours with a piece of dry black bread, of about a pound and a half in weight, without any other kind of nourishment. I endeavored, as much as possible to imitate this abstemiousness, being already convinced, from experience, that it is the best preservative against the effects of such a journey."



NOTE R. PAGE 118.

Tenth Rule of Diet.

I ought perhaps to have added, as a tenth rule of diet, the direction,—**NEVER EAT UNTIL YOU ARE HUNGRY.** Certainly it is a most important direction. For the stomach will not digest food, until food is craved by it. Yet as if there were not danger enough from gratifying an unnatural appetite, produced by stimulating drinks, and high seasoned dishes, nothing is more common than for kind hearted friends to urge those to eat, who have no real appetite! Especially are invalids plied with earnest solicitations to take a little of this, and a little of that delicious article, on the ground that they will certainly sink, unless they keep up their strength with nourishing food. The invalid is easily persuaded that this is true; and having begun to eat, a false appetite is excited, and he gratifies it, until his stomach is set to perform a task for which it is wholly inadequate. If he perceives an increase of all his morbid feelings, he imputes it to the disorder under which he labors, and never imagines, any more than his friends, that eating without a natural appetite, is the cause of the exacerbation. "Who has not seen," says Dr. Avery, "in the most respectable families, a pale faced girl of sixteen or eighteen, swallow as much beef steak in half an hour after appearing in the morning, as would answer for her dinner? Or if she

* Burkhardt's Travels, Vol. II.

shows any disinclination to a small bit at least, she is immediately addressed by a fond parent with, 'My dear, you don't eat any thing, I am afraid you are ill. Do try to take something,' and other affectionate inducements, to eat what is not required."—"If the stomach is oppressed with food before it demands it (in the morning,) nothing like a healthy appetite is acquired for dinner, though the acrid remains of the imperfectly digested breakfast, together with the habit of eating at certain hours, occasion an uneasy sensation, which is often mistaken for real hunger. If a substantial dinner is now taken, the stomach is slow in performing its office, and is the seat of uncomfortable feelings, weight, and fulness. To relieve these, and rouse the oppressed organ to greater exertions, stimulants such, as wine and brandy, are resorted to, and they will have the effect for a time; but it is much like loading a feeble horse beyond his strength, and then applying the whip and spur, to quicken his movements. And as certain, as it is, that the horse will sink the sooner, for being flogged to perform impossibilities: so certain it is that these stimulants, will at last give the finishing stroke, to what little power the stomach may still possess."*

To avoid the bad habit of eating, at irregular hours, it is a good rule, when a person's appetite fails him, or is poor at the time of one meal, to eat nothing until the next meal: and if then the relish for food does not return, let none be taken till another regular time for meals arrives; and so on, until a natural appetite is restored, or disease makes such advances, that it is necessary to call in medical aid. What I mean is, that it is not best to gratify the appetite at irregular and unaccustomed intervals, because such irregularity will soon become habitual; and to the invalid, at least, it is most commonly injurious.



NOTE S. PAGE 121.

Unreasonable squeamishness about rigid and specific dietetic rules.

There exists a most remarkable sensitiveness on the subject of rules for regulating the diet. Men will all agree that we are bound to be temperate in food and drink. But when we attempt to mark out specifically and definitely, the line between temperance and intemperance, they exclaim against it, as ascetic, as pushing matters to extremes, as an attempt to destroy the innocent indulgences of social life, and to reduce men to one dead level of starvation and moroseness. Men seem to feel as if their rights were invaded; and as if it were their duty to stand up resolutely in their defence. This deep feeling on the subject, is certainly very remarkable. For what is it to be temperate, but to observe certain rules of diet? And where is the man from the most abstemious to the most gluttonous, who has not some specific rules for regulating his diet? The glutton thinks that it is safe and best to follow the promptings of appetite; and the abstemious man calls in the aid of other rules. Is it not, then, a fair subject of enquiry, what rules are the best? And certainly the more specific they are, the better; if rules are of any value—provided the subject admits of specific rules. But the grand difficulty, the cause of this squeamishness, is, that each man is very tena-

* *Dyspeptic's Monitor*, p. 67-69.

cious of the rules which he has adopted; and those, who are in any degree intemperate, are exceedingly afraid that their rules will not bear examination; and that if others are substituted, they shall be obliged to give up certain darling indulgences. Hence they plead clamorously, for having the rules of diet so general and loose, as to admit of much latitude of application, to suit different constitutions, &c. But if such demands were headed by the dietetic writer, he would soon find himself made the mere pander of appetite. His business, therefore, is to strive to make his rules as perfect as possible; without enquiring whether they are more rigid than men will like, or observe. For as a divine has justly remarked, "laws must not be depressed to our imperfections, nor rules bent to our obliquity; but we must ascend towards the perfection of them, and strive to conform our practice to their exactness. Were the rule never so low, our practice would come beneath it; it is, therefore, expedient that it should be high, that at least we may rise higher in performance than otherwise we should do: for the higher we aim, the nearer we shall go to the due pitch; as he that aimeth at heaven, although he cannot reach it, will yet shoot higher than he that aimeth only at the house top."

Rules do not infringe upon comfort.

"Many individuals, and very sensible ones too," says the Journal of Health, "set their faces against the adoption of any rules for the government of health, considering them all merely calculated to infringe upon their ease and comfort. They pretend that they are able to follow nature, and do *every thing which she requires*, without imposing upon themselves any specific restraints; and to enjoy, at the same time, very good health, with the exception of now and then a common head ache, a bilious attack, or a slight dyspepsia—all of which, they very gravely inform us, may be removed by a little medicine, or a few day's confinement."

"Ask these contemners of rules what they really conceive to be "doing every thing that nature requires," and they will tell you—"observing temperance and sobriety"—meaning by this, taking *no more* than five full meals in a day; namely, breakfast, luncheon, dinner, tea, and supper—"and in drinking always stopping short of intoxication."—Should the appetite prove unequal to so moderate a diet,—it can be easily excited, say they, by some trifling and very innocent stimulant. As to early rising, they seldom lie in bed after eight or nine o'clock in the morning, and always retire soon after midnight."

"Thus it is that the bulk of mankind deceive themselves: what they term living according to nature, is, in fact, a direct violation of her plainest dictates, which cannot fail, sooner or later, to display its effects in an enfeebled constitution, or in the occurrence of some serious disease—when the "little medicine," or "a few day's confinement" will be in vain resorted to for their wonted relief."

"It is perfectly ridiculous to suppose that an attention to the preservation of health, is calculated in the least degree to diminish our rational enjoyments, or to abridge the pleasures arising from an intercourse with society: on the contrary, the rules of hygiene, by marking the proper bounds within which these should be confined, are calculated to augment their zest and to prolong each one's capability of participating in them."

"La Fayette, unable to save the monarchy and constitutional liberty in the first revolution, led, subsequently, a life of virtuous retirement,

and matured his energies for that struggle, when, in the evening of his days, his services should again be called for, with honor to himself, and benefit to his country. Contrast him with that great bad man, his compatriot Mirabeau. The latter had a mind of the highest order, and eloquence the most commanding and impressive; but his commentary on national liberty, was personal licentiousness; his promise to save his country from anarchy, and king from the scaffold, was rendered vain by a premature death—the direct effect of the grossest intemperance, and neglect of those laws of hygiene on which longevity so much depends. Had such men as Fox and Sheridan attached more importance than they did to the means of attaining longevity, they would have been more attentive to those maxims of temperance and worldly prudence, by which the sphere of a man's exertions in the cause of humanity and patriotism is so much enlarged; and they would have retained the ability, in a healthy advanced age, of being their country's pilots amid the storm, as they had been its forward watch to announce danger. The principles of the whig opposition would not have suffered so signally as they did, by Fox, its great leader, receiving a stipend from his political partizans and friends, in the shape of a subscription;—an acknowledgment, in fact, of his necessities, which, together with disease, were the results of his intemperate extravagance: and by Sheridan, with all his oratory and wit, becoming an outcast from society—a drunken, fallen man."

"Why, in the instance of Savage, Burns, and Byron, were their genius and fine feeling clouded, and made at times to appear as a curse to their possessors, and a calamity to their fellow mortals? Why should we in theirs, as in so many other cases, be deprived of the delight which we experience before the majesty of intellect clothed in the harmony of song? Why, but because they proudly neglected, ay, scorned the plain precepts of temperance, and had no ambition to enter into the vale of years. Had they consented to look forward to such a termination, they would, while retaining, have augmented their energies, sublimated still further their ideas, and have passed their earthly bourne with the pure, yet brilliant light of the setting sun, and not sunk like a meteor, filling the people's mind with awe and doubt. Morality would then have had less cause to disclaim the alliance of genius; nor would vice be so readily heard uttering the base maxim, that stormy passions are the necessary accompaniments of lofty intellect."

"It is really astonishing," says Dr. Avery, "with what steadiness and ease the dyspeptic can follow such a course as has just been marked out, when he once becomes convinced of its effects, and has fairly turned his back upon the dangerous allurements of the table. Instead of longing after the rich dishes which he once prized so highly, he learns to look on them with indifference, or regards them as palatable poisons, and takes his simple fare with a relish which all the refinements of modern cookery cannot impart. This is no fiction: hundreds—yes, thousands can attest to its reality."

"Irregularity in the actions of life," says Dr. Londe in his *New Elements of Hygiene*, "rapidly destroys the organs, as in time of war the feeble soldiers forfeit life by that irregularity in regimen to which they are subject."

"The inferences from this rule are, that regularity should characterize the course of our lives; that we should endeavor to make this regularity agree as nearly as possible with the order of nature, from which we cannot wholly free ourselves; and that when our regimen cannot

be regulated entirely by this order, we should adopt rules as near to it as is in our power."

Advantages of hygienic rules.

The same author has drawn the following lively picture, of the benefits to be derived from the strict and persevering observance of those rules, which a system of hygiene develops. Nor will the description seem overdrawn, by those who are conversant with the subject.

"Hygiene is generally defined, the art of preserving health; but its dominion is much more extensive. This science, in truth, does not confine its advantages to the prevention of derangements in our organs; it has, also, for its object, the perfection of those same organs, and presents the surest means for remedying their affections. It is, therefore, by hygiene, that man preserves his health and perfects his faculties: by this, he learns how to use and enjoy every thing around him, and to avoid the dangers resulting from abuse and excess: this alone can furnish the means for a fuller developement of the natural feelings, when they are too feeble for the support and welfare of existence, or to sustain them when, by being too ardent, they are liable to degenerate into violent passions and to produce evil: it is hygiene, applied to the individuals of large communities, whether for perfecting their preservation or enjoyment, which makes the medical philosopher the guide and friend of the legislator, and the tutelary deity of nations, in peace as well as in war: finally, it is hygiene, which, after having embraced all the details of human existence, after having conducted man to the boundary of existence, happy and without infirmities, causes him to sink by insensible degrees; and procures for him an advantage, which physicians alone can fully appreciate, viz. an avoidance of those horrible death-pangs and the whole train of sufferings, which visit the man whom death smites before the natural termination of his career. Indeed, the man who by the constant observance of the laws of hygiene, is prepared for natural death, quietly ceases to exist, without suffering; and perceives the approaches of death, only by the difficulty of exercising his functions; a difficulty, of which he has little consciousness; because the brain, being in the same condition as the other organs, and like them exposed to the ravages of decay, experiences only imperfect conceptions."

"The utility of hygiene is too incontestable to need proof. If most of the maladies of man result from his abuse of those things which affect his system, that is to say, every thing in nature which serves for the preservation of life; as the air, aliments, heat, light, &c. it is clear that the science, which points out in what degree he ought to use these modifying powers, is the most efficacious means which he can employ, for preserving his health."

"Perhaps it will be objected to this short and imperfect explanation of the origin of diseases, that there exists another source of evils, from which man cannot shelter himself, by following ever so scrupulously, the rules of Hygiene: viz. certain mysterious and dreaded *viruses* or principles *sui generis*, &c. But we reply, that some of the most dreadful of these poisons derive their origin entirely from a transgression of the laws of Hygiene; and as to those whose origin physiological science has not yet satisfactorily explained, it is still Hygiene, which, by moderating their malignity, presents an obstacle to their transmission." *Introduction*, p. 5. *et seq.*

Extract from Dr. Reid's Essays on Hypochondriacal and other Nervous Affections, p. 206.

"Lord Chesterfield somewhere observes, that a gentleman, after having once dressed himself with proper care, will think no more about his dress during the remainder of the day. In like manner, after having adjusted the habits of regimen, according to the most approved model, a wise man will banish the subject from his mind. He will, as uniformly as he can, adhere to the rules of living which he has laid down for himself; but will have them as little as possible in his thoughts.

From Hoffman.

Quemadmodum sanitas omnium rerum pretium excedit, omnisque felicitatis fundamentum est, ita scientia vitæ ac sanitatis tuendæ omnium nobilissima, omnibusque hominibus commendatissima esse debet.



NOTE T. PAGE, 139.

Does Alcohol pass unchanged into the blood?

Some will doubt this. To the authorities already referred to, I will add the following, from Dr. Londe, a most respectable French writer on Hygiene. He states the fact without comment.

"It appears from the experiments of M. Magendie on animals, that alcoholic liquors do violence to the absorbents, and are introduced into the system without being assimilated." *Nov. Elemens D'Hygiene Deuxieme Partie, p. 141.*

Does the spontaneous combustion of drunkards ever take place?

Some will doubt this fact also. I will, therefore, quote another passage from the same work; since the statements of a foreign writer may be more likely to be believed, than those of any in our country; as all must allow, that he will not testify with any prejudices in favor of the temperance efforts in our land, being probably ignorant of them.

"According to the observations reported by M. Pierre Aime Lair* and many other authors, the habit of using alcoholic drinks gives to the organs the property of taking fire, even to their entire destruction, without the contact of any burning body." p. 141.

*A translation of M. Lair's Essay is given in *Trotter's Essay on Intemperance, p. 69 to 94.*

Query. Would not the cause of temperance be promoted in our country, by the republication of this work of Dr. Trotter's?

NOTE U. PAGE 145.

Water the "only fitting drink."

Nobly and triumphantly has the Journal of Health vindicated the opinion, that water is the "only fitting drink" for man; in other words, it is the best and only natural drink to be found. It was well that the Editors were attacked; for it has aroused them to bring forward such a mass of evidence and authorities on the subject, as must not only put their adversaries to shame, but effectually seal up the mouth of scepticism. Beginning with Hippocrates, they have found, that almost every distinguished subsequent physician and hygienic writer, has borne decided testimony in favor of water, as a drink proper and safe, and the best for every situation in which drink can be used, for allaying thirst. It would be very gratifying to make extensive extracts from these testimonies; but my limits will permit me to add only a few, to those given in the body of the work.

"If drink be merely required for allaying thirst and dryness, and diminishing the tenacity and acrimony of the fluids, then is cold water, when limpid, light, without smell and taste, and obtained from a clear running stream, the best drink for a robust man."—*Boerhave*.

"The water drinkers are temperate in their actions, prudent and ingenious; they live safe from those diseases which affect the head, such as apoplexies, palsies, pains, blindness, deafness, gout, convulsions, trembling, and madness."—*Sir John Floyer*.

"And that most remarkable story of Alexander Selkirk, a Scotchman, who from a leaky ship was, upon his own request, set on shore on an Island in the South Sea, called Juan Fernandes, where he lived four years and four months by himself alone, and eat nothing but goat's flesh, and drank water, having neither bread nor salt, as he told me himself at Bath where I met him; and that he was three times as strong, by exercise and such a diet, as ever he was in his life. But when taken up by the two ships, the Duke and Duchess, sent out from Bristol to the South Sea, that eating the ship-fare, with the other scaman, and drinking Beer and other fermented liquors, his strength by degrees began to leave him, like cutting off Sampson's hair, *crinitim*, (to make a word,) or lock by lock, so that in one month's time, he had not more strength than other men."—*Dr. Baynard*.

"The drinks we take in, are, seemingly, different matters, but the supply mentioned, may be made by pure elementary water alone; and that all the drinks which supply the necessary liquid, do it only by the quantity of elementary water they severally contain, will, we suppose, be readily allowed."—*Cullen*.

"The sole primitive and mainly natural drink is water; which when pure, whether from a spring or river, has nothing noxious in it; and is suitable and adapted to all sick persons, and all stomachs, however delicate and infirm; unless through depraved habit, fermented liquors should have become necessary."—*Gregory*.

"Water is of all drinks, that which, by constant use, is best adapted to prolong the life of man."—*Londe*.

"In short, the nearer we approach to a perfectly aqueous regimen in drink, during the first year at least, (in a tropical climate) so much the better chance have we of avoiding sickness; and the more slowly and gradually we deviate from this afterwards, so much the more retentive will we be, of that invaluable blessing—HEALTH."—*Dr. J. Johnson*.

"I aver, from my own knowledge and custom, as well as from the custom and observations of others, that those who drink *nothing but water*, or make it their principal drink, are but little affected by the climate (of the West Indies,) and can undergo the greatest fatigue without inconvenience." *Dr. Moseley.*

"Warm water is doubtless a gentle stimulus to the stomach, and has been recommended, alone, for that purpose, to invalids suffering under dyspepsy or indigestion." *Rees' Cyclopaedia, article Diet.*

"Water is, for the most part, the drink of the females in hot climates; hence we account for the common fact, that in the West Indies one woman generally survives two or three husbands." *Dr. Hosack.*

"Has a person been exhausted by lingering fever, the renovation of strength and flesh must be slow and gradual; and this is mainly accomplished with the most safety and success, as far as beverage is concerned, by pure water, or bland drinks having water for their basis. In indigestion, and its attendant train of hysterical and hypochondriacal disorders, although perverted appetite has craved, and false theory allowed, the use of ardent spirits and wine, we have experience of the most conclusive character, that the sum of bodily comfort, in mitigated disease and final cure, is immeasurably on the side of those who adopt the watery regimen, by making water their only beverage and using it in large quantities." *Editors of the Journal of Health.*

The celebrated physician, Dumoulin, being surrounded in his last moments by several of the most distinguished doctors of Paris, who spoke in strong terms of the great loss which the public would sustain by his death—"Gentlemen," said he, suddenly, "I leave behind me three great physicians." On their pressing him to name them, he briefly added, "Water, Exercise, and Diet."

"As to water, the natural drink of man, justly has one of our best poets denominated it *αριστον*:" that is, superlatively excellent. (*Αριστον μὲν ὕδωρ—Pindar Olymp. 1—2, 1.*)

(Extract from a work on Hygiene, published at Paris in 1829, in modern Greek, by a Greek physician, Constantine Caratheodore of Adrianople, for the use of his countrymen; and entitled *ΥΓΙΕΙΝΑ ΠΑΡΑΓΓΕΛΜΑΤΑ*, or Hygienic Precepts. The Greek nation, it is to be hoped, will profit not a little by the important and valuable advice which it contains.)

* The Editors of the Journal of Health will be pleased to accept of my thanks, for the unsolicited vindication of my opinions respecting wine, in the fourth Lecture, from the scurrilous attacks of the Editor of the American Quarterly Review, in his No. for December. I am under the greater obligations, because in applying the spear of Ithuriel, they were compelled to go down to the margin of that putrescent puddle in which that once respectable Editor had placed himself, in order to bespatter if possible, every friend of temperance who might pass by.

NOTE V. PAGE 147.

Cautions in the use of cold water when a person is very much heated and exhausted.

Dr. Rush recommended to persons in such circumstances, "1. To grasp the vessel out of which you are about to drink, for a minute or two with both your hands;" 2. "To wash your face and hands previously to drinking." These rules are generally followed, I believe, by farmers, throughout our country. But they are very dangerous rules. For the effect of their observance is to lower the temperature of the body, and thus to render it less able to resist the chill occasioned by taking the water into the stomach: since, as Dr. Currie remarks, "there is no situation in which the application of cold to the body, whether to the surface or the stomach, is so safe, or in general so salutary, as when the heat of the body, from whatever cause, is preternaturally great; provided that the body be not already in a state in which it is rapidly parting with this heat, and no disease has taken place in the general sensibility, in the structure in any of the parts, or any derangement or excessive action in the organs of respiration, or in those of the circulation of the blood.*" The following rules, given in the Journal of Health on this subject, will prove a strong security against injury from the use of water as a drink.

"1st. To abstain totally from the use of distilled spirits, especially during the summer."

"2d. To avoid all unnecessary fatigue."

"3d. To expose the body as little as possible to the action of the sun."

"4th. To draw the water from the pump or well, and allow it to stand exposed to the air at least three hours before it is drunk."

"5th. To drink but a small quantity at a time."

"6th. To drink, when it can be obtained, river water, which, at this season, is always safe without ice."

To these rules, perhaps it would be well to add another, from Dr. Coffin's work on Bathing, for those who get access to cold water, when they are very hot, thirsty, and fatigued, and cannot observe the direction to use water drawn up three hours before, viz. "either rinse your mouth and wash your face and hands with cold water, *without swallowing a drop of it*, and rest till the intensity of your heat and thirst has somewhat abated before you resume your labor or exertion, whatever it may be; or drink a wine glass full, or half a gill only, of the water, *taking care to continue your exercise* in a less violent degree."



NOTE W. PAGE 149.

Danger of any other substitute for ardent spirit and wine, except water.

It is not long since the friends of temperance were very solicitous to find out and recommend, other substitutes than water, to those whom they urged to abandon spirit. They seemed to feel as if this were incumbent upon them as a duty; or at least, that it was too rigid a scheme to propose bringing down men at once to so simple a beverage.

* Dr. Coffin's Discourses on Cold and Warm Bathing, &c. p. 64.

But I rejoice in the belief, that they are beginning to see that this is a hazardous and unnecessary course. For the only difference between most of these substitutes and ardent spirit, is, that they contain less of stimulus, and, therefore, are less injurious. Hence the man who uses them, is only partially converted to temperance. His taste for stimulants is still gratified in a degree; and depend upon it, that appetite will be seeking for opportunities and excuses to indulge itself as formerly. It will plead for stimulants a little and a little stronger, until the man imperceptibly slides back, first into the occasional, and then the habitual use of spirit. But he who uses nothing but water, will soon entirely starve his appetite for stimulants, and ere long think no more about them, than he does about any thing else, that does not concern him. One such convert is worth a dozen, who have only forsaken ardent spirit, that they might drink twice as much wine, or strong beer, or even cider. And to come at once to the use of water alone from alcoholic drinks, is much easier than to stop half way: for the man thus throws himself out of the sphere of a dangerous attraction, which extends, not feebly, all along the scale until you have passed beyond wine, and strong beer, and cider, at least.

The following remarks from a recent number of the *Journal of Health*, touch the very marrow of this subject.

"Here we beg leave to state, *the real question*, now before the public; it is that which must be freely and frankly canvassed. If ardent spirits be forbidden, the substitute must be pointed out—a substitute every where furnished by our Creator, adapted to every climate, and all ranks, ages, and situations. This substitute is water: every other is deceitful. Error cannot be overthrown by sophism, nor is it righteous or just, while removing one instrument of vice, to put another in its place, under the plea, that it is less hideous and less destructive. What answer can be given to the poor man, who inquires by what law of morality and health he is forbidden to drink ardent spirits, containing from forty to fifty per cent of alcohol, when the rich man of a Temperance Society, is allowed to drink wine which contains from twenty to thirty per cent of alcohol? If wine and malt liquors, be the allowable substitutes for distilled spirits, the declamations against drunkenness in our land must be suspended until the people can be provided with such. Away with this miserable quibbling! We shall next have one code of morals for the rich, and another for the poor;—one kind of religion to please the gentleman, and another to curb the passions of the needy and the beggar."



NOTE X. PAGE 171.

Further testimonies concerning malt liquors.

The warning voice against the use of malt liquors, is evidently waxing louder and louder; and not without reason, in our country. For not a few, who are driven from the use of ardent spirit, by the power of public opinion, are abandoning themselves to strong beer. Such would do well to ponder the following statements of medical men of the first reputation.

"The creed which teaches the beneficial effects of malt liquors," says the *Journal of Health*, "for a constant beverage largely used, will, on examination, be found nearly as fallacious, and, as far as excess goes,

nearly as fatal, (as that which teaches the good effects of ardent spirit.) No liquid is safe or proper for habitual use during health, which has the power, when drunk, of producing ebriety."

"Malt liquors," says Dr. Macnish of Glasgow, "under which title we include all kinds of porter and ales, produce the worst species of drunkenness; as in addition to the intoxicating principles, some noxious ingredients are usually added, for the purpose of preserving them and giving them their bitter.—After being swallowed, this process [fermentation] is carried on in the stomach, by which fixed air is copiously liberated, and the digestion of delicate stomachs materially impaired. Cider, spruce, ginger, and table beers, in consequence of their imperfect fermentation, often produce the same bad effects, long after their first briskness has vanished."

"The effects of malt liquors on the body, if not so immediately rapid as those of ardent spirits, are more stupifying, more lasting, and less easily removed"—"The most dreadful effects, upon the whole, are brought on by spirits; but drunkenness from malt liquors is the most speedily fatal."



NOTE Y. PAGE 179.

Further remarks and testimonies concerning tea and coffee.

I doubt whether there is any subject touched upon in these Lectures, concerning which, the respectable part of the community are more sensitive, than the use of tea and coffee. Not having been fully aware of this, have not perhaps expressed my views on the subject quite as definitely as might be desirable; and accordingly, I believe they have been, in some instances, misunderstood; and I have been thought to denounce indiscriminately the use of these articles, as pointedly as the use of spirit. It may be well, therefore, in the first place, to state precisely on what ground I stand as to this matter; and then to add some farther miscellaneous remarks and testimonies on the subject.

Position taken in respect to the use of tea and coffee.

First, they ought to be totally abandoned by the nervous invalid; (and what invalid has not an excited state of the nervous system?) for this is the almost unanimous opinion of able physicians; few of them allowing, in such cases, the use of any of these articles, except perhaps weak black tea, in small quantities; and nearly all admitting, that it would be best of all, to dispense with this also.

Secondly, I advise every young man, and especially every student, to give up tea and coffee entirely; because they are altogether unnecessary for his health, strength and happiness; because the habit of using them will often be a troublesome one; and to be rid of it, would, in many circumstances, be a great favor: as for instance, if a man were travelling in a desolate region of the earth, where their preparation would be very difficult and their disuse would be very painful, and perhaps injurious: because they tend to foster the bad habit of night study, by the unnatural excitement which they produce: because in persons of sedentary and studious habits, they are very liable to produce nervous complaints; and finally, because it will be very easy to abandon these articles in early life, but quite difficult in after life.

Thirdly, I say to Christians, that tea and coffee are unnecessary ; and that if once rid of the habit of using them, they would be more happy. Would it not then afford them more satisfaction in a dying hour, should they take water and milk as substitutes, and thus increase their pecuniary means of doing good ?

Finally, I say to the great mass of the community, who are healthy, and who have long been in the habit of using tea and coffee, that I do not doubt but it would be better for them, in almost every case, to free themselves from this habit : not because I suppose the habit to be as bad and injurious, by any means, as the use of alcoholic mixtures ; nor because an occasional cup of tea or coffee will produce much effect, one way or the other, upon health or longevity ; but because the fewer unnecessary habits a man has, the better ; and this one may be ultimately injurious. But if it be too much of a sacrifice to abjure tea and coffee, why then, I say, use them ; but be entreated to drink them weak, and to substitute black for green tea.

Dr. Londe's testimony as to the nature and effects of Tea and Coffee.

This writer, in his excellent work on Hygiene, classes tea and coffee, among the "unfermented stimulating drinks;" separating them from the alcoholic and fermented liquors, "because they produce neither drunkenness, nor the least confusion of ideas." In other respects, their effects on the system are the same ; "stimulating, but not nourishing." — "*Stimulantes et non réparatrices.*"

"Coffee accelerates the functions only by shortening their duration : it doubles the energy of the organs, only by doubling the debility which follows, when the excitement is over. The stimulus from coffee continues a long time, so that those not accustomed to it, either suffer the entire loss of their sleep, or obtain only short repose, of a kind that does not restore the powers. Coffee produces in irritable individuals, a remarkable agitation : an inclination for some kind of motion, which they cannot resist ; often a trembling of the muscles, spasmodic cramps, anxiety, and palpitations. *Coffee should be used only in those circumstances, in which it is proper to use fermented or spirituous liquors.* No other inducement, not even the necessity of intellectual efforts, can justify the use of coffee. Nothing is more calculated to increase the emaciation, the paleness, and to hasten the exhaustion of the organs, in persons of an irritable habit, than this beverage ; which is altogether stimulating and not in the least nutritive." (p. 149.)

"It is not on account of its liquid condition, or its high temperature, or the pretended debility which it causes in the stomach, as many writers have maintained, that tea, like coffee, produces hypochondiacal and nervous affections ; but on account of its stimulating without nourishing the system ; whereby the organs are awakened to a high degree of energy, only to sink under a correspondent debility."

Dr. Buchan's opinion.

This is sound philosophy. Perhaps, however, the following remarks concerning tea, from Dr. Buchan, impute too much to its influence.

"Tea will induce a total change of constitution in the people of this country. (England.) Indeed, it has gone a great way towards effecting that evil already. A debility, and consequent irritability of fibre, are become so common, that not only women, but even men are affected with them. That class of diseases, which for the want of a better name we call nervous, has made almost a complete conquest of the one sex, and is making hasty strides towards vanquishing the other,"

Dr. Avery's opinion.

"Most persons of a nervous temperament are more or less exhilarated by them, (tea and coffee,) and not unfrequently pass a sleepless night after drinking them in the evening. To such persons they are injurious, particularly if they are dyspeptic, notwithstanding, they of all others, experience the most refreshing and pleasurable sensations after taking them. To those who suffer from acidity they are poison, and but little less to all who are any way nervous. The least objectionable article of this kind, is black tea, but it is seldom preferred by the tea drinker, for the same reason the dram drinker does not prefer claret to strong wine or brandy, it is comparatively but little stimulating."*

Dr. Avery, however, sees no reason why "the healthy and robust, especially if engaged in active pursuits, should not use these articles in moderation."—(See also page, 441.)

Dr. Trotter's opinion.

"Souchong tea, used once a day, not made too strong, with a due admixture of cream and sugar, is a harmless and agreeable beverage. But hyson, and all the greens are powerful narcotics that distress the stomach."—*Essay on Intemperance*, p. 170.

Green Tea poisonous—Dr. Beddoes' Experiments.

"It was first ascertained by a number of trials with a variety of preparations from vegetables, that laurel water, infusions of opium, of digitalis, and green tea, *bear equal rank* with regard to their destructive effect upon the hearts of frogs and toads.†—all rendering them instantaneously incapable of pulsation."—"In all our experiments, (of which a particular account may be seen, in Dr. Beddoes' work,) tea proved *as quickly poisonous* as laurel water, opium, or digitalis; and in some, *more so*.—These experiments indisputably prove green tea to possess a most formidable quality."

"The condition of the system in young people appears plainly to be such, as to cause them to be *more strongly affected by tea, than persons of more advanced years*.—They should all without distinction be banished from the regimen of the young and healthy."—*Beddoes on Hygeia*, vol. 1. *Essay* 3. p. 35, 37 & 38.

Would it abridge the pleasures of social intercourse to banish tea and coffee from entertainments?

Many feel as if the attempt to dissuade any from the use of these articles, were a kind of sacrilege; because, in their opinion, they are indispensable, to give life and happiness, to social visits, and even family repasts. But not long since, the same feeling existed, and with many still exists, in respect to wine and ardent spirit. It was thought that conversation would be neither lively nor interesting, unless sharpened by the inspirations of the flask. But it needed only a simple experiment to show, that if less boisterous, social intercourse was not less profitable, nor interesting, although neither ardent spirit nor wine were in the

* Dyspeptic's Monitor, p. 149.

† Cold blooded animals were chosen, because they are peculiarly sensible to the influence of the vegetable poisons.

feast. And it needs only a similar experiment in respect to tea and coffee, to show that *any* stimulus, which produces an unnatural excitement in the nervous system, mars the pleasure, and the profit of social interviews. The equable flow of feeling, which health and temperance produce, is all the physical preparation which a man needs, for enjoying the most himself, and communicating the greatest amount of happiness to others, in social intercourse. If every kind of unnecessary stimulus were put away, the social board would not so frequently become the scene of bitter contest; nor would men be obliged so often to look back upon these occasions, with remorse, because there they spake unadvisedly with their lips.

"I remember a gentleman at Prince of Wales's Island, some years ago," says Dr. J. Johnson, in his *Tropical Hygiene*, "who was remarkable for his convivial talents and flow of spirits. The first time I happened to be in a large company with him, I attributed his animation and hilarity to the wine, and expected to see them flag, as is usual, when the first effects of the bottle were past off; but I was surprised to find them maintain a uniform level, after many younger heroes had bowed to the rosy god. I now contrived to get near him, and enter into a conversation, when he disclosed the secret, by assuring me he had drunk nothing but water for many years, in India; that in consequence his health was excellent—his spirits free—his mental faculties unclouded, although far advanced, on time's list; in short that he could conscientiously recommend the antediluvian beverage, as he termed it, to every one that sojourned in a tropical climate."

Does the use of tea and coffee, tend to prevent the use of ardent spirit?

The common opinion is, that it does; but I ask for the proof. For all the evidence that occurs to me, supports the opposite opinion. Where does intemperance in spirit most abound? In those countries—viz. England and the United States—where the greatest quantity of tea and coffee are drunk; if we except China, and perhaps Turkey; where they have not the means of procuring so much spirit. I do not contend, indeed, that the use of tea and coffee, is the chief cause of the excessive employment of alcoholic mixtures: Yet it is philosophical to infer, that such would be their tendency: for the use of a mild stimulant of any kind naturally produces an appetite for one that is stronger; because the milder one soon loses its effect in a measure, and the sinking powers cry out for another more potent, to wake up their energies.* The reason that habitual drunkards not unfrequently care little about tea and coffee, is, that their stimulating power is too weak for them. But this does not prove that any contrariety exists in the effects of these substances and spirit; nor does it prove that the drinking of the former, was not a stepping stone to the use of the latter, while the stomach was more susceptible. Upon the whole, it seems to me, that both reason and experience are against the opinion, which imputes to tea and coffee, a power of resisting the progress of intemperance.

* The extent to which this craving for additional stimulus will proceed, is strikingly illustrated in the fact, that the "Turks, habituated to opium, *chew Corrosive Sublimate, to excite a little the sensibility of the palate*?"—*La Physiologie Des Gens Du Monde*. p. 204.

But is it not folly to urge men to give up all their luxuries ?

Some persons feel as if it would greatly injure the cause of temperance, to say a word against such articles as tea and coffee, or even wine, by producing the impression that it is the intention to proscribe even the lawful indulgences of social life. It is said, "men will never consent to relinquish all the luxuries of life, and confine themselves to the necessities. We cannot expect them to relinquish all their indulgences, even if these are known to shorten the period of their existence."* And why will they not abandon their luxuries ? Because they suppose that thereby they shall abridge their comfort and happiness. But suppose you can convince them that such an abandonment will promote their happiness ; surely they can easily be persuaded to relinquish all their luxuries. Now I maintain, that any change in the habits of eating and drinking, which promotes health and long life, does also promote the happiness of the individual. The enjoyment may be less intense : but it is more enduring, and unaccompanied by the subsequent suffering that attends every unnecessary indulgence. A man has only to abandon any of his unnecessary luxuries, and adopt a more simple mode of living, to be satisfied of the truth of this position. He who has long indulged in the use of spirit, cannot be persuaded that he shall not lose a great deal of pleasure by forsaking his bottle, until by the experiment, he is astonished to find how much his happiness is thereby promoted. Still more difficult is it to persuade the lover of wine, that to leave the flask, would not be the sacrifice of a great amount of enjoyment. But the simple trial produces an entire revolution in his feelings. Now as it is admitted that water alone is more promotive of health, as a constant drink, than any other, it follows, that to forsake every other, will increase our happiness. And any one, (perhaps there may be some excepted cases,) who will make a fair and thorough trial, will be satisfied that there is no fallacy in this reasoning.

It is in a firm belief that a man's happiness is increased by every degree of temperance that tends to health and long life, that I have urged abstinence from many articles of food and drink, which are generally considered harmless, or venial indulgences. And if I mistake not, it is an ignorance or forgetfulness, of this principle, that leads so many to cry out against excessive strictness in diet and regimen. They seem to feel, that even if such exactness were necessary in some cases of feeble health, yet it is only a necessary evil ; and that he who adopts it, must make an immense sacrifice of comfort, and really deserves to be pitied. But this is a totally erroneous view of the subject ; *as every one who has tried the experiment faithfully, will testify.* Even the inveterate tea or coffee drinker, would find it, in nine cases out of ten, a most important acquisition to his happiness, to have permanently acquired the habit of using only water and milk for his beverage. But it would be altogether idle for me to expect that I shall convince the great mass of the community, that such would be the effect of the disuse of these articles : and, therefore, I have not pressed the subject, except upon a few classes. But the rule that I have adopted, to give a fair statement of the actual effects of different substances upon the health and happiness, would not permit me to withhold my opinion, which, although free, I hope is not dogmatical.

I cannot conceal my belief, however, that the temperance movements in the land, will, ere many generations, press hard upon tea and coffee.

* Pierson's Address on Temperance, p. 23.

Christians at present, have but a faint conception of the amazing influence that will hereafter be exerted by the extension of the principle of total abstinence from alcohol. Even the noble spirits—"the apostles of temperance"—who commenced this enterprise, will probably find, as they look down upon some future happy generation, from their thrones of glory, that their brightest visions were but indistinct and cloudy.

I feel then, as if I had been presenting the views that will prevail in the millenium, as to the articles under consideration, rather than those which may be expected to be entertained in our own days. And yet, when I hear the almost simultaneous call for help, that echoes from the failing treasuries of nearly every benevolent society in the land, and recollect how they might be filled to overflowing, were the money now expended by Christians only for these two bewitching narcotics, to be turned in thither, I cannot but believe that every conscientious and benevolent man, will seriously enquire, whether duty may not call him to make the sacrifice, even now—especially, if it be true, that instead of suffering, it will result in an augmentation of his personal happiness. But probably the language of Christ, on another subject, may be applied to this: *All men cannot receive this saying, save they to whom it is given. He that is able to receive it, let him receive it.*

Tea with dinner, or three times a day.

Months of recent travelling in New England have shown me, that the practice of having tea with dinner, has become almost universal at our public houses. Indeed, in some of them the traveller is not even asked whether he wishes it; but this is taken for granted: and in almost every other case, the question is put.

Having dined one fine autumnal day, without tea, at a retired country tavern, we sat down for a time in the dining room; when we saw a table spreading for some one else; and perceiving the tea apparatus appear, the impression was, that some nervous lady had ordered it. But soon the door opened, and there was ushered into the room, one of those objects, not unfrequent upon market roads, a portly teamster,

"In fair round belly with good capon lined;"

and with one of those red gross faces, that showed him to be in the habit of bracing against the vicissitudes of his condition, by some more potent stimulus than tea. A good comment surely, we thought, upon the doctrine, that the love of tea can hardly co-exist with a love of alcohol.



NOTE Z. PAGE 182.

Additional testimonies and remarks concerning a milk diet.

When we recollect that almost every physician, and other dietetic writer, recommend the use of milk, with a fearless and almost enthusiastic earnestness, particularly for the invalid; and that every man who has fairly tried such a diet, echoes back the recommendation, it is really astonishing that so few can be induced to adopt it. The only excuse invalids make, in general, is, that "it does not agree with them." But in offering this apology, they virtually confess that they have widely departed from nature and temperance. For certainly milk

was originally congenial to their constitutions; and in ninety nine cases out of a hundred, the subsequent dislike to it must have resulted from the excessive use of food more rich and stimulating. "In general," says an able writer,* "disgust at particular foods, is produced by surfeits, which injure the stomach and create in that exquisitely irritable viscus, an insuperable antipathy to receive nourishment which formerly gave it so much uneasiness to digest."

Extract of a letter from an esteemed correspondent.

I have been surprised, that milk should be so much overlooked by most writers on dietetics. "It is," says Buchan, "of more value (in consumption) than the whole materia medica." And again; "This preparation of nature, a mixture of animal and vegetable properties, is the most fit for restoring a decayed constitution." (And why not then for every purpose of health?) "But people despise," he adds, "this wholesome and most nourishing food, and devour with greediness, flesh, and fermented liquors, while milk is only deemed fit for hogs." I am satisfied, that the complaint, so often made, that it does not agree with the stomach, is in most cases for the want of a proper trial, or from a willingness, perhaps, that this should be the fact. An eminent medical writer, whose name I do not now recollect, observes, "that he had seldom found milk or eggs to disagree even with persons in fever."

Opinion of Dr. Avery.

"The diet which I have found to succeed best in a large majority of cases, (of common dyspepsy,) is bread and milk. There are many who are prejudiced against milk, and a few with whom it really does not agree, who will be obliged to adopt a different diet; but I advise all who have no disrelish for it, to give it a fair trial before they strike it out of their bill of fare."

"It is unnecessary to say, that every one in his early days could eat milk, and if it really does not agree with him now, it shows how much his stomach is influenced by habit. But in almost every instance, it may be brought back to a state not to be disturbed by what once suited it so well. In one case, I recollect, when a milk diet was advised, it occasioned for two or three days, both vomiting and purging; but perseverance conquered at last, and the stomach not only bore it pleasantly, but it was eaten with great relish.—There are many who cannot eat milk occasionally, for instance, at supper, after a meat dinner, who will find no inconvenience from it if they confine themselves to it entirely.—For those who cannot eat milk, I have found the following diet to answer best. The breakfast should consist of plain bread, and a soft boiled egg without any drink if it can possibly be dispensed with—at most only a small draught of water.—Those who are fond of tea and coffee may think it rather hard, at first, to be deprived of them; but they have only to lay them aside for a few days, and then return to them to be convinced of their injurious effects. Nothing can be more pernicious than these two articles, whether taken strong or weak, in this species (of dyspepsy.) If weak, like all hot fluids, they are debilitating to the stomach; if strong, they irritate its nerves, occasion a great secretion of their mucus, and in a word, are most powerful agents in promoting acidity. *The invalid need not expect to recover while he persists in using them.*"

* Smellie's Philosophy of Nat. His. Ware's first edition, p. 121.

"The dinner in the worst cases, should be nothing more than the breakfast, and the supper a bit of bread alone."—*Dyspeptic's Monitor*, pp. 96, 97.

Case of John Hanway, the distinguished philanthropist.

"The precarious state of his health on his return to England—he then laboring under all the premonitory symptoms of consumption, rendered it necessary for him to use the utmost caution in his diet and regimen. His perseverance in following the directions of his medical attendants was remarkable. Milk being recommended to him by Lieberkuhn, the physician to the king of Prussia, as the most proper diet to restore his strength—he made it the chief part of his food for thirty years: although at first it disagreed with his stomach, he persisted in trying it under every preparation of which it was capable, until at length he became reconciled to its use."

"Mr. Hanway never drank spirituous liquors in any form, nor wine undiluted with water."

"By this rigid attention and care, his health was re-established, his lungs acquired strength and elasticity; and there can be no doubt he would have lived many years longer, if the disorder, accidentally contracted, which was the immediate cause of his death, had left him to the gradual decay of nature."—*Journal of Health*, vol. I. p. 339, 340.

From Hufeland's Art of Prolonging Life, Vol. II. p. 249. -

"Lord Bacon mentions a man of 120, who, during his whole life, never used any other food than milk."

Dr. Londe's remarks upon the use of milk.

"Milk calms the passions as it calms the respiration: it communicates mildness to the character, as it imparts moderation to the movements."

"Milk generally agrees with nervous people: its use, continued a long time, is proper to restore to its natural state, an excessive sensibility—an irritability raised by the use of stimulants beyond the degree necessary for the support of life. It is particularly proper for restoring to the organs, that freshness, that color, that moderate fleshiness, and that youthful appearance, which we have lost by the abuse of every kind of stimulants in great cities."

This writer says, that in Paris, the people and even the children, who live on milk, are often the most miserable of beings; and in assigning several reasons why the full benefits of milk can never be felt, but in the country, he says; "it seems to be necessary, in great cities, to hasten the combustion of life, to prevent the flame from being extinguished; or, what amounts to the same thing, to employ means for sustaining life at the present moment, which are prejudicial to its duration."

"Milk is particularly unfriendly to those of Lymphatic Temperament—to persons confined in low and humid regions, where the air is bad—even if these persons be infants. For such individuals, aliments which produce more of reaction than milk, are better; provided always that the stomach be in a perfectly sound state."*

Statement of another physician.

"Milk does not generally agree with the perfect hypochondriac, nor the plethoric and corpulent, (the two latter classes corresponding to

* Noveaux Elements D'Hygiene, p. 69, 70, 71.

those of a Lymphatic Temperament according to Londe,) and disagrees particularly with tiplers, or those addicted to strong liquors."

Sure Methods, &c. p. 40.

Common objection to the use of milk.

Those who endeavor to accustom themselves to the use of milk, almost universally complain, that it makes them dull and sleepy. This proceeds from two causes. Not unfrequently too much is eaten, and then effects are produced similar to those from an excess in other kinds of food; though these effects are seldom so serious or lasting. To remedy this difficulty, is, of course, an easy matter, to the man who has the command of his appetite. The other cause is, that the system, which is accustomed to the stimulus of tea and coffee, suffers when the accustomed excitement is not produced: and a sense of dulness succeeds. But so soon as the equilibrium of the system has been restored, by perseverance in a milk diet, this drowsiness will disappear, and then will follow an equable state of feeling, most favorable to health, as well as to mental effort. Many, however, by continuing the occasional use of tea and coffee, after they have professedly abandoned them, prevent the restoration of the system to a natural state; and continuing of course to suffer from dulness after meals, they conclude that milk is unfriendly to their constitutions; and thinking they have given it a fair trial, they abandon it in disgust or despair.

I regard this objection against the use of milk, as one of its strongest recommendations; especially to invalids and students. For persons of these descriptions, generally suffer much from an excited state of the nervous system; whereby their sleep is shortened, or disturbed; or what is more common, is not taken till after midnight. And nothing tends more to increase this difficulty, than the use of tea and coffee: and all other means to cure it, will generally prove inefficacious, if milk be not be made a substitute. This will dispose a man to sleep when he is fatigued; that is, when the system needs it; because it supplies no artificial stimulus. It will, therefore, prevent the student from indulging in study at a late hour in the evening; a practice that has sent many a valuable man to a premature grave.

It is said that the use of some such stimulus as ginger, in milk, will prevent its producing dulness. The addition of lime water will sometimes make it more congenial to acid stomachs. To obviate any tendency to costiveness, which it may possess, it may be mixed with oat-meal gruel. Weak stomachs can generally bear it better, if it be diluted with lukewarm water.



NOTE A. A. PAGE 190.

Harmless Puddings.

One of the best of this kind for most stomachs, and particularly for the cure of habitual costiveness, is what is sometimes called *mush*; or a pudding made by adding rye flour, (if unbolted the better,) to boiling water. A person of feeble health may eat this for months, once or twice a day, and find it always to relish. It may be eaten with molasses, sugar, or milk. Butter should not be added.

Thomas Wood, whose case was mentioned in Note E, lived for many years entirely on puddings made according to the following receipts.

"Three pints of skimmed milk, boiling, were poured on one pound of the best sea biscuit, broken into pieces: this was done over night and the ingredients were left to stand together until the following morning, when two eggs were added. This compound, being boiled in a cloth

about the space of an hour, became a pudding of sufficient consistence to be cut with a knife."

"The pudding which he afterwards used, was composed of one pound of the flour, of which the coarse or ordinary kind of the sea biscuit is made, boiled with a pint and a half of skimmed milk, without any other addition."



NOTE B. B. PAGE 191.

Mistake as to the use of fruit to prevent costiveness.

"While on the subject of diet, I will mention an error, into which those who suffer from this species of dyspepsy very commonly fall: it is, the eating freely of such fruits as apples, peaches, &c. which for a little time seem to alleviate the uneasiness produced by acidity, and act as an aperient.—This deceives the invalid, and he imagines they are beneficial to him, when in reality if indulged in, they greatly weaken the stomach by their indigestible quality, and increase the tendency to acidity.

Dyspeptic's Monitor, p. 100.



NOTE C. C. PAGE 229.

Shampooing.

A variety of exercise, under this title, has been recently recommended by several writers, and will, in most cases of dyspepsy, prove a valuable auxiliary for the recovery of health. The following extracts exhibit its nature and use.

From the Encyclopedia Americana, article, Dyspepsia.

"Mechanical manipulation of the abdomen, and particularly of the epigastrium, after a meal, becomes a substitute for the natural motion of the stomach, expels the wind, and facilitates digestion, that would otherwise be laborious and painful."

From the Dyspeptic's Monitor, p. 126.

"*Shampooing, rubbing, kneading, &c.*—Shampooing is a remedy which we have borrowed from eastern nations, by whom it is much employed. It consists in violently kneading, rubbing and working the part to which it is applied.

In order to act upon the stomach, it must be more or less distended; of course, the best time is soon after eating, when by kneading from below upward, it is forced against the liver and diaphragm, and its muscular coat roused to more vigorous action. Much of the weight and uneasy feeling which the dyspeptic experiences after eating, may be often removed by this process."

"The bowels can be acted upon at all times, and they will be quickened in their movements by shampooing, exactly in the same way as they are by the pressure and concussion which they receive in walking or riding on horseback."

"Let not the professed gourmand, the idle epicure, nor even the book-worm, the accountant, or delicate female, who never exceed one twenty-fourth of their time in active exercise in the open air, flatter themselves that shampooing will enable them to eat with impunity the hearty food

that is proper for the labourer only. It may be usefully added to a proper regimen, but it is good for nothing without it. In this respect it stands in the same light with every other remedy. To suppose it applicable to all cases of dyspepsia, is as absurd as to imagine that any one medicine will cure all diseases. Mustard seed and brandy have both in their turn been considered as specifics. The first is now and then useful, the second never."*



NOTE D. D. PAGE 235.

Rules for those necessarily exposed to night air.

"1, To lead a life of sobriety—giving to the term its most comprehensive meaning."

"The experience of all who have had an opportunity of observing the diseases of warm and unhealthy climates, has convinced them, that under similar degrees of exposure, the strictly temperate—the abstemious, both in eating and drinking, are those who are the least liable to be affected with disease."

"2, Always to wear woollen garments and flannel next the skin."

"3, To remain at rest as little as possible—neither to sit nor lie upon the ground, and above all never to fall asleep."

"4, The periods in which exposure is the most injurious, are during the first hours of the night and those which immediately precede the rising of the sun."

Journal of Health, Vol. II, p. 21.



NOTE E. E. PAGE 213.

Warm Bathing.

Many are injured by this rather powerful, but very pleasant remedy, for feeble health, from a want of strict attention to minute circumstances. After the water is raised to a temperature between 90 and 100 degrees, a person may enter it: but he should have the means at hand of adding more hot or cold water, as he shall please. If too hot to be comfortable, he should add cold water: if too cold for comfort, he should raise its temperature. The grand object should be to give that degree of heat, which is perfectly congenial to the feelings; so that to remain in it is a luxury. Each individual must learn by repeated trials, how long it is best for him to remain in the bath; nor should he be discouraged, if its effects at first, seem to be unfavorable. In the winter, the room where the bath is situated, should be made quite warm by a stove; so that a person shall not be liable to chills on coming out of the water. He should then rub himself thoroughly, and take care not to expose himself very much to the air during the day, if it be very severe; unless engaged in very active exercise. If he finds his appetite increased by the use of the bath, it is a good sign: but the reverse is a bad sign.—See a pamphlet on bathing by Dr. John G. Coffin.

A very cheap and convenient portable bath may be made of tin, in the form of a boat, painted and varnished, of a capacity from 15 to 20 pailfuls. Let 6 or 7 pailfuls of cold water be poured into the bath, and four or five more be heated to the boiling point. This will be sufficient to raise the whole to a proper temperature, even in the coldest weather.

* Since the above note was prepared, Mr Halsted's "New Method of Curing Dyspepsia" has been received. But I have not found time to examine it.

Fashion of Bathing.

"The frequent use of tepid (warm) baths is not more grateful to the sense, than it is salutary to health and beauty.—By such means the women of the East render their skin softer than that of the tenderest babes in this climate, and preserve that health which sedentary confinement would otherwise destroy."

This delightful and delicate oriental fashion is now, I am happy to say, prevalent almost all over the continent. From the villas of Italy, the Chateaus of France; from the Castles of Germany, to the palaces of Muscovy, we may every where find the marble bath under the vaulted portico, or the sheltering shade. Every house of every nobleman or gentleman, in every nation under the sun, excepting Britain, possesses one of these genial friends to cleanliness and comfort."

"Indeed, so impressed am I with the consequences of their regimen, (that of baths,) that I strongly recommend to every lady to make a bath as indispensable an article in her house as a looking glass."

Mirror of the Graces: See Journal of Health, Vol. II, p. 90.



NOTE F. F. PAGE 216.

*Remarks of Dr. Londe of Paris, concerning sleep.**

"The feebleness which marks the features of those lean, excitable persons, who convert day into night, and the paleness of their complexion, prove, clearly enough, that the sleep which they invoke, after the sun is above the horizon, is never so profound, or restorative, as that which is taken during the night in the absence of excitements of the senses. Why are so many fashionable females, who do not employ stimulants, so pale and colourless; and why do their eyes fail them so early? Just because they think it a matter of indifference, whether they sleep in the day time, or in the night."

"The season of sleep ought to be so regulated, that midnight shall be the middle of the time devoted to it, and noon the middle of the period in which we are awake: that is, we should go to bed and get up, at hours, equally distant from midnight. In the winter, this habit is important for the preservation of the sight; since it is better for the eyes to use them by candle light three hours at night, and three in the morning, than six hours in succession—Some think they may retire later in the summer, because the day is longer: but this is an error: for does not the day commence as much sooner?"

Quantity of sleep necessary.

"Individuals easily excited, whose relative duties are very numerous, and who are rapidly exhausted, have the greatest need of sleep. The more time they can give to it, the better; and they ought not to sleep less than seven hours. On the contrary, men of a phlegmatic temperament, and of a Lymphatic or sanguineo-Lymphatic constitution, can endure watchings without inconvenience. Why should those who think but little, have need of sleep? For are they not in a sort of sleep all the time in which they do not think? Six or seven hours are sufficient for such."

"The habit of sleeping after dinner, usually comes from giving the stomach too much work to do by overeating; so that this organ, in order to accomplish its functions, must borrow from the other organs the

* Noveaux Elemens D'Hygiene, Tome Premier, p. 360, &c.

requisite strength. The means of overcoming this habit, is to diminish the quantity of nourishment."

"It is generally said that women need more sleep than men, because they are more feeble : but this opinion cannot be very true, &c."

Plan for reforming the habits of a great city.

"An objection will not fail to be made to what I have said respecting the hours that ought to be given to sleep, viz. that the rules proposed, are applicable only to him, who has nothing to do, but to take care of his health ; or who lives in the country ; and that they cannot be followed by the inhabitant of a great city, who is enclained by occupations, the time of which is settled by an established order, which it is not possible for individuals to alter. This objection is very strong : the obstacle is a reality. But it can be destroyed by a government which consults the learned every hour, to ascertain what will promote the health of the citizens. Let an ordinance change the hour when the principal axes, shall begin their motion, around which all affairs revolve ; and which, by their progress, seem to fix the duration of labours, pleasures &c. Let the opening of the courts and the exchange be put three hours earlier ; let the same be done in all the offices of government ; and truly, a reform so salutary to health, which should be begun by so many lawyers, so many who are employed in the administration, and so many merchants, would shortly extend to that small portion of the community, called the *fashionables*. Finally, the administration of the police, for the interest of the workmen, has ordained, that the representation of shows, where these laborours assist, shall be ended by ten or eleven o'clock ; so that being freed from their labours, these useful men may lose less of sleep. Now that which I propose, is not much more difficult to execute. It would even be useless to comprise the spectacles in an ordinance ; for they would be forced soon to follow the general order !"

Probably the scheme of Dr. Londe will appear visionary to most persons. But we must recollect that he belongs to a nation which was once induced to adopt the use of the potatoe, in spite of a strong prejudice, merely from observing one of the flowers of this plant in the coat of their monarch on a court day : and that he proposes the change in Paris—a city, where during the last 50 years, almost every change that was unexpected and incredible, has transpired.



NOTE G. G. PAGE, 270.

Want of Employment.

As I was addressing students only, in my lectures, I assumed, from the very nature of the case, that they would never be in want of employment ; unless they should cease to be students. But there is not a more prolific source of dyspepsy and misery, than to live without any regular business ; and among the wealthy classes of the community, this is no uncommon case. Indeed, to reach such a condition, seems to be the grand object, after which immense multitudes are toiling, as if it were the *summum bonum*. And if God permit them to attain their object—that is, to acquire a large amount of wealth, without a taste for literature, or science, or art, so that day after day and month after month, are to be spent without any regular occupation, he could hardly send upon them—so far as this world is concerned—a heavier curse. And when the novelty of such a life is over : when they have gone

through for a few times, with the wearisome round of fashionable life; and the dinner party, the tea party, the assembly, &c. begin to pall upon the senses, the man will find that of all human sufferings, *ennui*, with its accompaniments, nervousness and dyspepsy,—is the most to be dreaded. The constitution of man is most evidently fitted for active efforts; for without these to act as stimulants, all the physical as well as intellectual powers stagnate, and disease and imbecility are the inevitable consequence: so that the proverb is founded in truth, which says. “*I have not leisure to be sick.*” For vigorous, (not exhausting,) employment is one of the strongest antidotes we possess, for resisting incipient disease. If we do not give the mind something to do abroad, it will turn inward and devour itself; and a morbid state of mind cannot but produce a morbid state of body. Let then, every man of wealth, dread, as one of the greatest of evils, a freedom from regular daily occupation; and if he cannot secure this employment in any other way, let him endeavour to place himself in such circumstances, that a heavy pecuniary loss will be the result of neglecting it.



NOTE H. H. PAGE 270.

Self-Immolation.

Ruined by hard study.—The history of very many of our students might be briefly told. A lad is sent to college, and after a few months he returns, pale, emaciated, and puny. Immediately a general lamentation is raised among the circle of his friends, that the dear youth is ruining himself with *hard study*. It is high time that both friends and the public should be disabused on this subject. The truth is, in most cases, hard study has had little or nothing to do with the business. He may have studied well or he may not; but this is not the ground of the difficulty. He has indulged his youthful appetite, without regard to even the *common* rules of discretion. At the same time, he has indulged in indolent habits, neglecting exercise, or taking it so irregularly as to do him more hurt than good. And very possibly, too, he may have learned the very gentlemanly habits of drinking wine, if nothing worse, and smoking chewing, and snuffing tobacco. And no wonder he looks pale. Meanwhile there is something so pleasant to the ears of a young student in the report that he is ruining himself by *hard study*, that he feels almost willing to endure his sufferings; and as he looks in the glass, he thinks he can discern in his pale features, plain indications of future greatness. Whereas, if he would learn to read aright, he would only discern indications of present imbecility, and future worthlessness. Only convince the young gentleman, that it will not be fatal to his scholastic dignity to *bestir* himself a little, and live and *act* like other people, and at the same time put a little restraint upon his gluttonous propensities, and the blush of health, and strength of limb, will soon return; and with them will return that energy of mind, which will qualify him to study to some purpose.

“*Worn out by Arduous Labors.*—We wish to add a few words, on the importance of this subject, when viewed in reference to the Christian ministry. At the present day, when there is such an alarming want of laborers in the vineyard of Christ, what a pity, we often feel constrained to say, that the energies of those already there, should be so sadly paralyzed by this deadly foe to usefulness. Into whatever part of the country we go, we hear of ministers taken off from their labors by ill health. This is generally attributed to their arduous labors; sometimes we

doubt not, with reason; but in very many instances, we honestly believe, *arduous labors* have about as much to do with the ill health of the ministers, as *hard study* has with that of the young student. Their labors are arduous we know; but attention to a few simple rules would have preserved both body and mind in such a healthy, vigorous state, as would have rendered their burden comparatively light. The subject is peculiarly important, with reference to those sons of the church whom, by her charity she is endeavoring to train up for future usefulness in the gospel ministry. Treasure that has been consecrated to God, should not be wasted in training up a race of invalids; and after the light that is now shed upon this subject, we cannot hesitate to say, that the beneficiary, who persists in sacrificing health, to habits of bodily indolence and self-indulgence, ought to be regarded as guilty of a moral offence, and should be forthwith dismissed from the patronage of the church."—*Christian Mirror*.

From the Christian Spectator.

"We will not conceal the gratification, which we cannot but feel, in the exertions which have been lately made, in one quarter and another, to rouse the Christian student to his obligations to watch over the physical nature, with which he is entrusted. Let the warning fall upon his ear like repeated claps of thunder; Beware how you neglect the corporeal frame work, with which all your intellectual operations are so closely connected. Let this frame work moulder by sloth, or be shaken by excess, or be crushed by overstrained exertion, and you are lost to the cause, to which you might otherwise have been long and usefully devoted. If you do not go down to an early grave, you will be a dead man while you seem to live. Oh, how many departed ones have been lamented, as martyrs to excessive application, who have died "as the fool dieth," the miserable victims of indolence and luxury! The missionary enterprise demands men of a widely different stamp,—men, who have consecrated their *bodies* as well as their souls, a *living sacrifice* to Jesus Christ,—men who will spare no pains to preserve their lives and health unimpaired, that they may toil long and vigorously, and joyfully, for their Saviour."—*Christian Spectator*, Dec. 1830, p. 634.



NOTE I. I. PAGE 306.

Extract from the Preface to Le Catechisme De La Medicine Physiologique, Paris, 1824.

After condemning, in decided terms, such works as Buchan's Domestic Medicine, as having done a great deal of mischief, he proceeds:

"But in spite of the discredit, into which such works (works on Hygiene) have fallen among physicians, we think that they have become necessary in the present state of society; and because the most of them are bad, it is indispensable that good ones should be prepared. Indeed, how can you hinder educated men from reading books of medicine? They have contracted that habit since physicians have written in the vulgar tongue. Each amateur of our science has his theory, concerning the causes of maladies and the effects of remedies; and these prepossessions are one of the principal obstacles which a physician meets, at the sick bed. One, seduced by the trash of my Lord Leroy, punts after nothing but purgatives: another, having a scent of the Brunonian system, is not satisfied with any prescription but tonics and stimulants. A third, sees nothing in every malady, but a suppression of the perspiration, and

never will resort to medicines, till he has tried sweating beyond bounds, by wrapping himself up excessively and taking hot drinks. Since at this day empiricism and ontology have passed beyond the language of our classics, into that of the community, there is a multitude of persons, who entertain you with an account of morbid principles, or matters, under which they believe themselves laboring. They represent their own bodies to be the rendezvous of five or six sorts of diseases, which attack them together or separately: the gout, the rheumatism nervous disorders, *glaires*, bilious complaints, a *humour*, &c.; they demand of their physician a specific for each one of these; and if he refuses to prescribe one, their confidence in him is shaken, and soon they give themselves up into the hands of some charlatan, who succeeds in ruining their health."

"Many men of merit, disgusted by the diversity of opinions among authors, have become altogether sceptical; (of which, most distinguished physicians, even lately, have set them a pitiable example,) and refused with obstinacy the assistance of our art."

"What more shameful, what more dishonorable to science, and yet what more common, than to see men of letters, mathematicians, and distinguished civilians, reposing confidence in mere pretenders to medicine, who are destitute of logic, and ignorant sometimes of the first elements of grammar, under the ridiculous pretext that such quacks may possess excellent receipts; and that they have seen them effect wonderful cures! The more ignorant and coarse a man is, the more he inspires confidence in certain people. A physician, who has studied long to acquire information, has nothing marvelous about him; but the individual who can hardly speak his native tongue, has the reputation of knowing secrets which are omnipotent against most disorders: many see in him something wonderful, even supernatural; and their confidence is strengthened by that which ought to destroy it."

"Although at this day, medicine has become a science which rests on invariable principles, its practice is not yet accessible to the mass of society: but they can study its theory, because they can comprehend it; and they ought to do this, because they will derive from it great advantages. They will thus be able to judge concerning the physician who comes to their aid; and to distinguish between the physiological practitioner, and the mere ontologist, or *routinist* (*routinier*.)"



NOTE K. K. PAGE 357.

System of Self Support adopted at Philip's Academy, Andover.

I was agreeably surprised to find, on visiting Andover, that the system of self support, which I was about to advocate before the Mechanical Association, was already in successful operation in the Academy in that place. "The diet" says one of the Trustees, who has had the goodness recently to answer my enquiries, "in the commons, is bread and milk for supper and breakfast, and a plain common dinner of meat. During the season of the year for work on the farm, the students are required to labor eleven hours a week. We have now one vacation in the Spring, of one week, and another in the Summer, of the same length, and a third of six weeks in the Winter; that our young men may keep school. The second term has just closed, and the experiment thus far, appears altogether favorable. The price of board, for the two terms, has been 77 cents a week. There were in the commons last term about 40. As far as I know, they were universally satisfied with their

living—their health was good, and one of the instructors told me, at the close of the term, that they had accomplished more in their studies than usual.”

The public will look with great interest upon the progress and final results of this interesting experiment: and I rejoice that it is under the guidance of men, who will conduct it judiciously.

Noble example.

The following statement of a pious young man at one of our western colleges—as contained in the annals of the American Education Society—shows what can be accomplished by abstemiousness and self denial.

“I will tell you,” said he to an agent of the Society, “how I live. I purchase a bushel of corn meal for 20 cents. I get a loaf baked each week for six cents. I live upon my corn bread and water, and it costs me but twelve and a half cents a week! With this fare I am well contented if I can prepare myself for usefulness in the vineyard of the Lord; and at the close of the session, I doubt not but I shall be as healthy as any of my companions.”—“While speaking of his health,” says the writer, “I was forcibly reminded in view of his healthful countenance, of Daniel and his associates, who, from motives of Christian self denial, lived upon pulse, instead of the king’s meat.”

Boston Recorder, Nov. 17, 1830.

NOTE L. L. PAGE 361.

Additional facts illustrative of the longevity of learned men.

It would be very easy greatly to enlarge the list that is given in the Address, of distinguished octogenarian students. In Sinclair’s Code of Health, for example, we find the names of 158 scholars in Modern Europe, (few of which, I believe, are included in the list that I have given,) the average length of whose lives is as follows:

42	English Literati,	-	-	-	-	83 years,
81	French "	-	-	-	-	85 "
22	Italian "	-	-	-	-	85 "
6	German "	-	-	-	-	83 "
4	Dutch "	-	-	-	-	81 "

Average, 81

Living Scholars.

It is believed that a list of the most distinguished living scholars and philosophers, would conduct us to the same conclusions: viz. that they must either have inherited vigorous bodily constitutions, or have rendered healthy and hardy by regimen, those naturally feeble: and that intellectual pursuits are favorable to health. The following list of distinguished living German *Savans*,* obligingly furnished me by Dr. Francis Lieber, will render this position probable.

* The following note respecting the health of German scholars, (a subject frequently alluded to in this work,) which was this moment received, from a gentleman who has travelled extensively in Europe, is too valuable to be withheld.

“In the South of Germany, I found half the literati, whom I saw, dyspeptic; some great sufferers. I believe there is error on this subject: though I suspect that the habit of unbending—the freedom from our slavish feeling of responsibility, has some influence.”

Blumenbach, born 1752, and is now	79 years old.
Göthe, - - - 1749 - -	82
Paulus, the theologian, born 1761 and is now	70
Eichhorn, - - - 1752 - -	79
Gauss, - - - 1777 - -	52
Bode, - - - 1747 - -	84
Rosenmüller, - - - 1768 - -	63
Hecren, - - - 1760 - -	71
Schleirmacher, - - - 1768 - -	63
Shlegel, Aug. Wilh. - 1767 - -	64
Savigny, - - - 1779 - -	52
Buttman, - - - 1764 - -	67
Hegel, - - - 1770 - -	61
Schelling, - - - 1775 - -	56
Wegscheider, - - - 1771 - -	60
De Wette, - - - 1780 - -	51

Average 66

Testimony of writers on this subject.

Many volumes have been written on the means of lengthening life, and on the causes of longevity. One of the best views of the subject that have fallen under my notice, is contained in Hufeland's *Art of Prolonging Life*. "Deep thinking philosophers," says he, "have always been distinguished by their great age, especially when their philosophy was occupied in the study of nature and afforded them the divine pleasure of discovering new and important truths." (vol. 1. p. 137, London Edition, 1797.)

"The ancient philosophers," says he, "undoubtedly studied as much as the modern literati; and yet they never suffered from the hypochondria, hemorrhoids, &c. The sole cause of this was, that they meditated more, lying or walking, and in the open air; because they never drank coffee, or used tobacco; and because, at the same time that they exercised the mind, they never neglected the care and the exercise of the body."—*Vol. II. p. 30.*

In his first volume, (p. 69,) he says, "No instance can be found of an idler having attained to a remarkably great age."

And since literary men are under peculiar temptations to live a life of celibacy, it may be well to quote the following from volume first, p. 167.

"All those people who have become very old, were married more than once, and generally at a very late period of life. There is not one instance of a bachelor having attained to a great age."

Professor Chapponier of Paris, in his recent and interesting work, entitled, *La Physiologie Des Gens Du Monde*. &c. corresponds in his views of the subject of longevity, essentially with Hufeland. His chapter on that subject is very valuable.

"A philosophical life," says he, "often prolongs the duration of existence and longevity, and is by no means incompatible with intellectual labors when they are not excessive." (p. 319.) "To live is not to vegetate—to drag out long days in apathy. It is to think—to feel—to act." (p. 301.)

"It is well known that the *macrobiotic* art, or the art of prolonging life, consists in abstaining from every kind of excess—even from excess in good things."—"The only source of all longevity, therefore, can, be nothing but temperance and uniformity in physical and moral efforts:—temperance and mediocrity in nourishment—in labors—in pleasures—in repose." (pp. 302, 303.)

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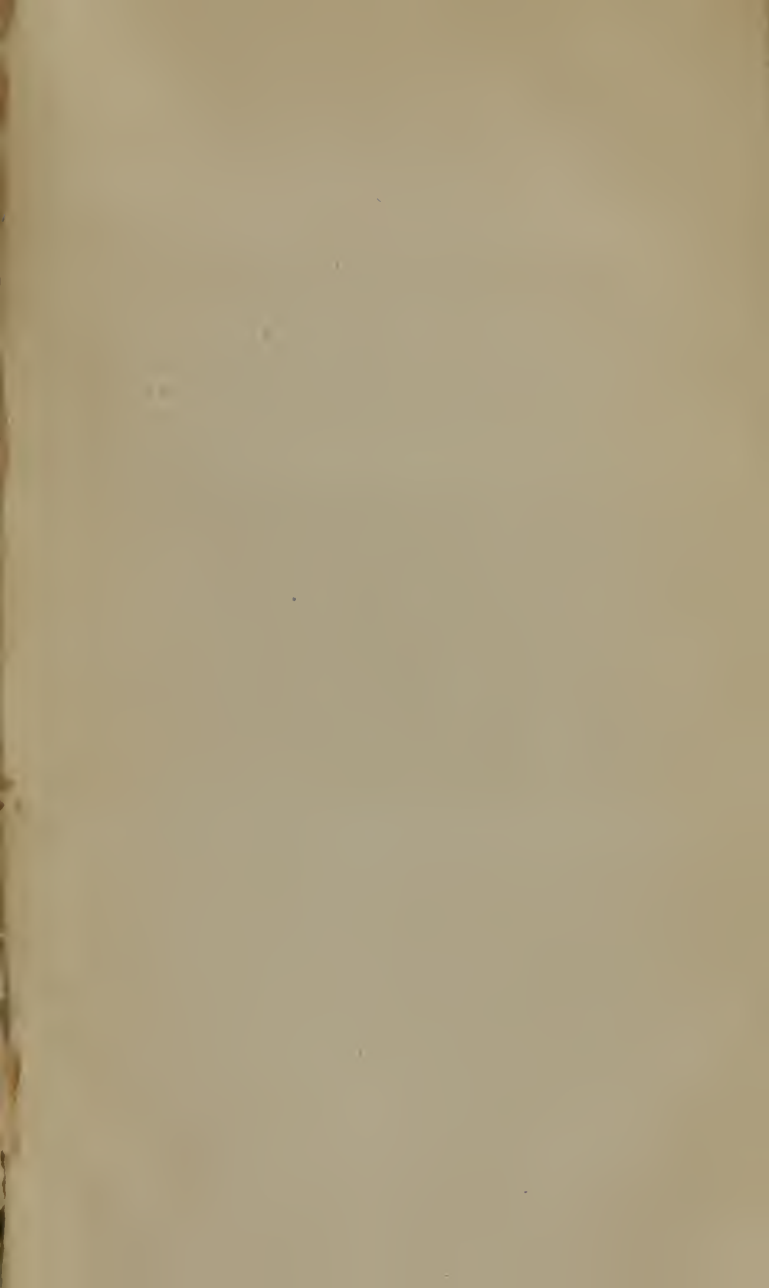
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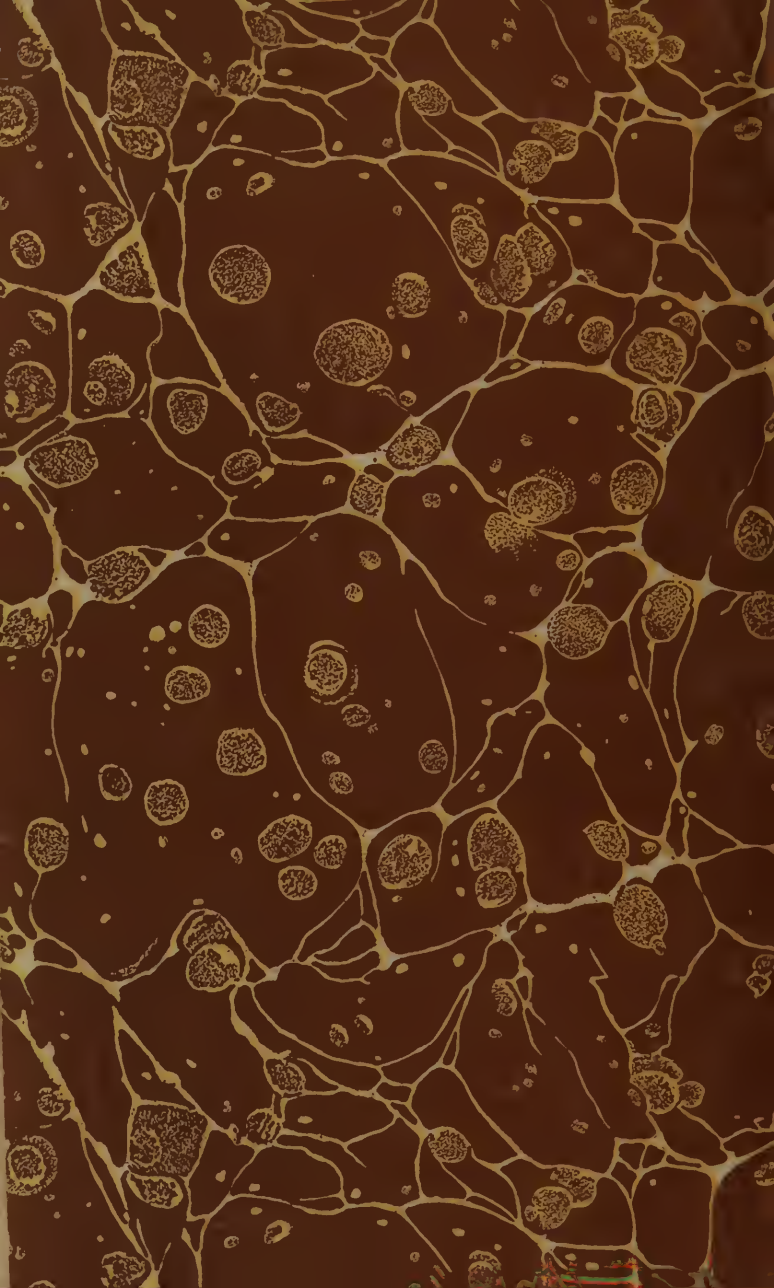
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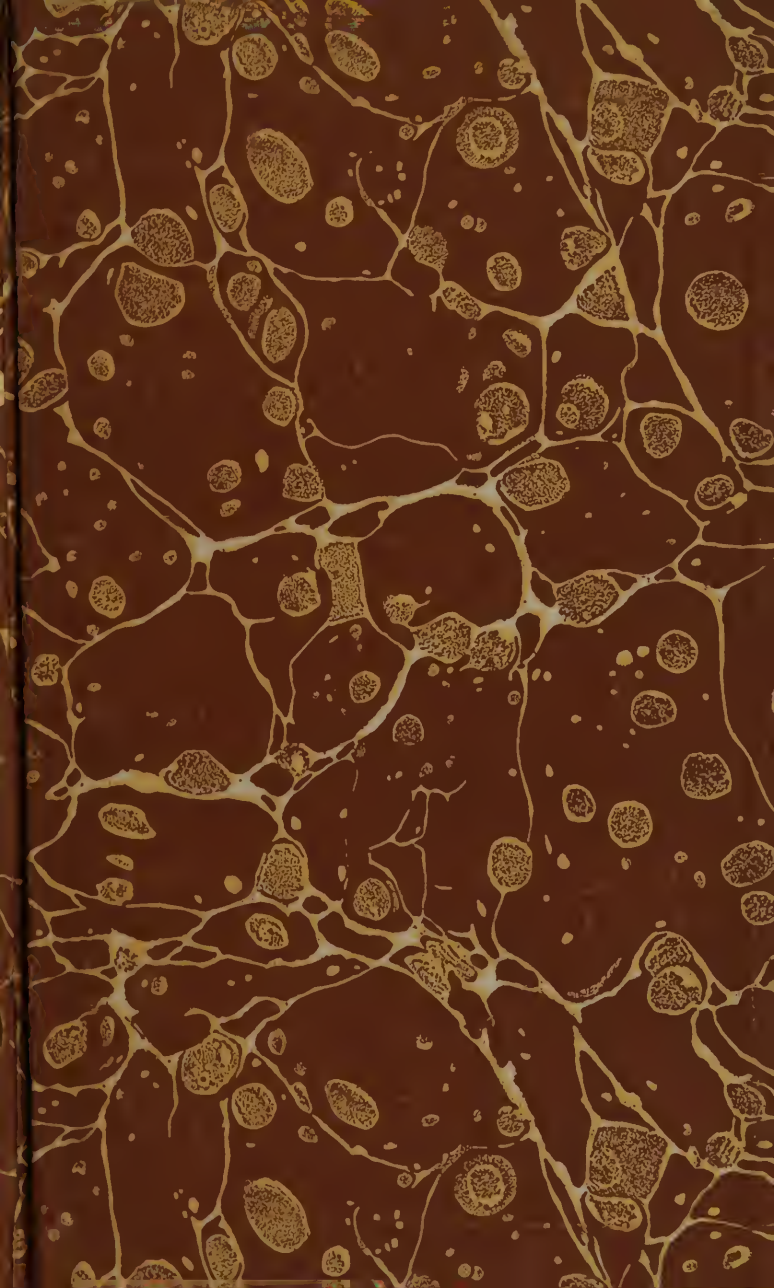
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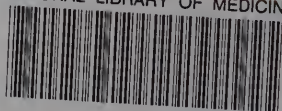
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